Search Report from Ginger R. DeMille

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? show files
File  15:ABI/Inform(R) 1971-2003/Sep 24
         (c) 2003 ProQuest Info&Learning
File  16:Gale Group PROMT(R) 1990-2003/Sep 24
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         (c) 2003 PR Newswire Association Inc
File 634:San Jose Mercury  Jun 1985-2003/Sep 23
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         (c) 2003 The Gale Group
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         (c) 1999 Business Wire
File 813:PR Newswire 1987-1999/Apr 30
         (c) 1999 PR Newswire Association Inc
File  13:BAMP 2003/Sep W2
         (c) 2003 Resp. DB Svcs.
File  75:TGG Management Contents(R) 86-2003/Sep W2
         (c) 2003 The Gale Group
File  63:Transport Res(TRIS) 1970-2003/Aug
         (c) fmt only 2003 Dialog Corp.
? ds

Set     Items   Description
S1      18669   JN=(FLEET? OR TRUCK? OR TRAILER? OR TRAILOR?)
S2      92636   (AVAILABLE OR AVAILABILITY)(3N)(STATUS OR CHECK OR CHECKS -
             OR CHECKING)
S3         22   S1 AND S2
S4         19   RD (unique items)
S5    1491585   OUTSOURCE? OR OUTSOURCING OR THIRD()PARTY OR TPL
S6        519   S1 AND S5
S7         43   S6 AND STATUS
S8         38   RD (unique items)
?
```

Scanned titles & abstract

125-Sep-0311:10 AM

? t8/3,k/all

8/3,K/1 (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02615384 358437851
TransCore purchases CarrierPoint
Anonymous
Fleet Equipment v29n6 PP: T4 Jun 2003
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 194

Fleet Equipment

...ABSTRACT: based TMS software and services provider that focuses on mid- to large-sized shippers and **third - party** logistics service providers (3PLs). The transaction amount was undisclosed.
...TEXT: based TMS software and services provider that focuses on mid- to large-sized shippers and **third - party** logistics service providers (3PLs). The transaction amount was undisclosed.

CarrierPoint provides Web-based applications that...

... business processes: eRFQ (electronic request for quote), contract management, shipment rating, dispatch, scheduling, freight payment, **status** tracking, delivery confirmation, dock scheduling, analysis reports and planned collaboration. Today, TransCore provides TMS software...

8/3,K/2 (Item 2 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02571885 322168401
Technician training: A rewarding necessity
Deierlein, Bob
Fleet Equipment v29n3 PP: 18-20 Mar 2003
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 1556

Fleet Equipment
...TEXT: going training, says, "Continual training creates a situation where it doesn't make sense to **outsource** repairs, because there is nothing better out there. It's in-house where we achieve...the employee and both an employer and the trainee will be able to view both **status** and history of the training. More information its programs can be found on its web...

8/3,K/3 (Item 3 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02381492 127299041
CDLs threaten security
Kahaner, Larry
Fleet Owner v97n6 PP: 10 Jun 2002
ISSN: 1070-194X JRNL CODE: FOW
WORD COUNT: 633

Fleet Owner
...TEXT: Illinois and Florida who obtained fraudulent licenses and transferred to other States. In 2000, a **third -- party** examiner in Georgia was accused of illegally selling over 500 CDLs. After Sept. 11, the ...

... CDL applicants to show proof of state residency and U.S. citizenship or legal alien **status** and that states check applicant social security numbers against government records to make sure they...

8/3,K/4 (Item 4 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02318210 109394663
Telematics: The next generation of wireless data
Mele, Jim
Fleet Owner v97n2 PP: 80-82 Feb 2002
ISSN: 1070-194X JRNL CODE: FOW
WORD COUNT: 1821

Fleet Owner

...ABSTRACT: Initially, at least, services will be stand-alone and offer little or no integration with **third - party** applications.
...TEXT: offered fleets a solid return on investment by allowing dispatchers to track vehicle and load **status** more efficiently, says Norm Ellis, vp of business operations for Qualcomm Wireless Business Solutions. Two...

8/3,K/5 (Item 5 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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02318181 109393618
Rethinking lease
Kilcarr, Sean
Fleet Owner v97n2 PP: 22-26 Feb 2002
ISSN: 1070-194X JRNL CODE: FOW
WORD COUNT: 1924

Fleet Owner
...TEXT: as emergency road service and vehicle rentals."

Full-service leasing also enables Western Nevada to **outsource** some of the more expensive aspects of running a fleet, including vehicle maintenance, while still...brokerage services."

The tough economic climate means that more fleets are willing to challenge the **status** quo in order to reduce both the cost and risk in their operations, says Leinbach...

8/3,K/6 (Item 6 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02317087 109535027
Schneider National Bulk Carriers (SNBC) adopts TMWSuite
Anonymous
Fleet Equipment v28n2 PP: 44 Feb 2002
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 483

Fleet Equipment
...TEXT: SNBC plans to roll out TMWSuite on May 1, 2002.

"We reviewed the marketplace for **third - party** dispatch system providers and concluded that TMWSuite was the best candidate for dispatch systems in ...

... user of TMWSuite's add-on modules for e-- Link (Internet) and EDI (orders, order **status** and billing)." Driving SNBC to consider TMWSuite was the need to update its basic dispatch...

8/3,K/7 (Item 7 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02304759 103754743
Management for hire
Skydel, Seth
Fleet Equipment v28n1 PP: 26-29 Jan 2002
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 1793

Fleet Equipment

ABSTRACT: Say " **outsourcing** " to many fleet managers and what comes to mind most often will be vehicle leasing...

... as well as contracting for fuel and other services. How many fleets, however, have considered **outsourcing** the executive management talent it takes to run a trucking company's equipment and maintenance...
TEXT: **OUTSOURCING** VEHICLE OWNERSHIP OR MAINTENANCE SERVICES ARE TRIED AND TRUE PRACTICES FOR MANY TRUCKING OPERATIONS. **OUTSOURCING** EXECUTIVE TALENT IS NOT NEARLY AS COMMONPLACE BUT MAY BE BENEFICIAL FOR SOME FLEETS.

Manager...

... in leasing organizations that he says gave him a unique perspective on the issues surrounding **outsourcing** .

Included on Stuart's resume is the role of vice-president, Operations at United Truck...

... and 450 drivers, safety programs, purchasing and administration. Stuart managed these activities to record profitable **status** by operating under budget durina his tenure.

Recently, Stuart also held the position of vice...

...To reach Darry Stuart, call (508) 384-3844 or e-mail darrywst@aol.com.

Say " **outsourcing** " to many fleet managers and what comes to mind most often will be vehicle leasing...

... as well as contracting for fuel and other services. How many fleets, however, have considered **outsourcing** the executive management talent it takes to run a trucking company's equipment and maintenance...

...at only a fraction of the expense of a full time manager?

What does an **outsourced** executive do when he comes into a fleet? Stuart explains, "My role is to build...

...by a part time manager can often help cut maintenance costs.

"When fleets talk about **outsourcing** services," Stuart continues, "there are a lot of factors to consider. If there's a lack of expertise in-house, people will tend to **outsource** in the form of a fullservice lease or contract maintenance. For smaller operations, there may...

...and managing and maintaining them internally."

More than money

The decision fleets must make regarding **outsourcing** maintenance, according to Stuart, reflects a need to balance service requirements with operating costs. "It...as well as issues like availability of supplies."

Applying the same approach to determining if **outsourcing** management talent is appropriate, Stuart says to use the same type of equation. A fleet...

... you would like more experience on your staff but you have budget constraints, think about **outsourcing** management talent as a way around those roadblocks," he states.

"My role," Stuart continues, "is...

...having a lot of management horsepower for a much smaller expense."

Fleets that are considering **outsourcing** executive talent should look for those capabilities. They should seek out a results-oriented executive...

...DESCRIPTORS: **Outsourcing** ;

8/3,K/8 (Item 8 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02146629 70203771
Leasing as an option
Birkland, Carol
Fleet Equipment v27n3 PP: 41-44 Mar 2001
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 2341

Fleet Equipment
...TEXT: need service support.

Many fleets who traditionally owned trucks are now evaluating leasing and maintenance **outsourcing** .

As a full-service lease provider NationaLease not only gets involved in

vehicle maintenance, but...

... When choosing a company from which to lease equipment, fleets need to know the financial **status** of the lessor. Ford suggests that fleets make certain they are dealing with one service...buying," says Gillum. "Many fleets who traditionally owned trucks are now evaluating leasing and maintenance **outsourcing** . A trend we are seeing is that private fleets are moving away from using cost...

... on cost/palate/mile or cost/piece/mile to determine fleet productivity. In these cases, **outsourcing** becomes a solid option to help identify the best measurements for the most effective solution...

8/3,K/9 (Item 9 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02104439 64803295
Training resources: Off the shelf
Cullen, David
Fleet Owner v95n11 PP: 17-20 Nov 2000
ISSN: 1070-194X JRNL CODE: FOW
WORD COUNT: 1682

Fleet Owner
...TEXT: ASE-certified. ASE says that completing certification:

1. Bestows professional credentials. It's an impartial, **third - party** endorsement of one's

knowledge and experience.

2. Demonstrates commitment to the service and repair...

... 7. Provides greater earnings potential. Many attain salary and wage increases based on their certification **status** .

8. Improves skills and knowledge. Achieving certification takes training, study, and keeping up with changing...

8/3,K/10 (Item 10 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

01962036 46923698
Ryan Trucking offers certified quality service
Hart, Joseph
Fleet Equipment v25n11 PP: 50-53 Nov 1999
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 2315

Fleet Equipment
...TEXT: neither did "Control of Inspection, Measuring and Test Equipment -4.11 " or "Inspection and Test **Status** - 4.12 ".

Other elements were restructured and interpreted to match the business. "Many people expect...

... designed to shakedown the system. It was much more detailed and tough than the regular **third party** audit. They uncovered about 40 action items that we had to address before the final...

8/3,K/11 (Item 11 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

01906527 05-57519
Establishing a retirement plan for your company
Zall, Milton
Fleet Equipment v25n9 PP: B4-B8 Sep 1999
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 1806

Fleet Equipment
...TEXT: well as the Department of Labor (DOL). The IRS is primarily concerned with the tax **status** of the plan. If the plan does not meet IRS regulations, it can lose its...

...around for the best deal.

Termination of a Retirement Plan

To maintain its favorable tax **status** , a plan must be considered by the IRS to be a permanent arrangement for the...

... paperwork becomes too burdensome, consider redesigning the plan to make it easier to administer, or **outsource** the retirement plan function . FE (Illustration Omitted)

Captioned as: Many companies are available to help...

8/3,K/12 (Item 12 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

01845935 04-96926
How can you know?
Deierlein, Bob
Fleet Equipment v25n6 PP: B4-B8 Jun 1999
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 1086

Fleet Equipment

ABSTRACT: Because of particular operational needs even very large fleets may need to manage **outsourced** maintenance programs. For example, fully 80% of Budget Truck Group's maintenance is performed by **third party** suppliers. With this volume, Budget decided to develop a computerized system, called Marksman II, to manage the network and analyze cost. The criteria Budget uses when selecting a provider of **outsourced** maintenance include: technical qualifications, hours of operation, pick up and delivery service, distance to repair...
TEXT: Headnote:

Evaluating **Third Party** Maintenance Suppliers

While fleets have always sent out some of their maintenance activities, **outsourcing** is a growing phenomenon. When you are in the market for a maintenance partner careful...

... done will reduce downtime, maintenance cost and fuel expense. In the same way, selecting a **third party** supplier for **outsourcing** functions can help to eliminate or reduce many problems in the future.

Because of particular operational needs even very large fleets may need to manage **outsourced** maintenance programs. For example, the Budget Truck Group operates over 40,000 Class 2 through...

... 970 million miles annually. Gary Andrews, the group's vice president of technical services, says, " **Third party** suppliers account for 80 percent of maintenance performed on our fleet. With this volume, we...

...cost.
(Photograph Omitted)

Captioned as: Fully 80 percent of Budget's maintenance is performed by **third party** suppliers. The fleet developed its own program, called Marksman II to manage the network and...

... own program called Marksman II by leveraging input from all involved sources -maintenance providers themselves, **third party** suppliers, mobile vendors, parts suppliers, OEMs and tire suppliers-in addition to every internal department...

... history on-line, performance measures are available on-line, provides on-line work order payment **status** and lets a supplier accept/reject work based on availability.

Andrews offers some of the criteria Budget uses when selecting a provider of **outsourced** maintenance: technical qualifications, hours of operation, pick up and delivery service, distance to repair facility....

...VMRS code, breakdown percentage and rework percentage.

The options
A fleet manager in need of **outsourced** maintenance has a number of options:

(Photograph Omitted)

Captioned as: Many fleet managers have found...

...re repair cost, downtime, warranty recovery and, of course, quality."

Johnson describes how Ruan makes **outsourcing** decisions. He says, "Our service rep defines search area in miles depending on geographic area...

... to include location, number of times called in the last six months, percentage utilized, preferred **status** and 24-hour availability."

(Photograph Omitted)

Captioned as: Increasingly sophisticated engine designs, long term warranties...

...president of Fleetnet, a breakdown-service provider, says that he uses a

process called "strategic **outsourcing** " when he needs to find a contract maintenance provider. He says, "My intention is to...

... identifies and utilizes skilled technology to save money and provide a competitive advantage."

He continues, " **Outsourcing** , simply put, is the contracting of outside help to perform a particular task or ongoing operation. Strategic **outsourcing** directs the maintenance or operations management to those providers who specialize in a particular area of expertise to provide maximum efficiency."

According to Summer, advantages of **outsourcing** include:

1. Reduction of operating expenses via a reduction of overhead.

2. Improved service levels from these **outsourced** components by increasing availability and improving responsiveness.

3. Increased productivity and efficiency in specific areas...

...focus on what it does best.
5. Reduction of development cost by capitalizing on the **outsourcing** firm's advanced capabilities.

A **third party** vendor should provide:

Higher and more stable level of expertise than what you have internally...

...DESCRIPTORS: **Outsourcing** ;

8/3,K/13 (Item 13 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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01827463 04-78454
Implementing a flexible benefits plan
Zall, Milton
Fleet Equipment v25n5 PP: B4-B8 May 1999
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 2651

Fleet Equipment
...TEXT: care expenses or vice-versa. Except for unusual events, such as a change in family **status** , once an election is made it cannot be changed. As a result, if employees overestimate...

... can lose money. To reduce this likelihood, employees should be notified in November of the **status** of their FSAs and encouraged to use the balance in their "account" before the end...house expertise to design and install such plans. The solution in this case is to **outsource** the design and administration function. There are plenty of benefits consultants out there who are...

8/3,K/14 (Item 14 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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01761599 04-12590
Time's up!
Deierlein, Bob
Fleet Equipment v25n1 PP: 48-53 Jan 1999
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 2778

Fleet Equipment
...TEXT: day compliance would likely be considered inexpensive. And can you imagine your company's legal **status** if there is a leak or release.

Enforcement

The Federal government is pressuring enforcement agencies...an onsite visit:

Leak detection records - last year's monitoring results, most recent tightness tests, **third party** certification of leak detect equipment and maintenance, repair and calibration of leak detection equipment;

Corrosion...
... 3 is work performed before UST upgrade work begins at the site. Depending on the **status** of various issues determined in the first two phases, the amount of activity required prior...very difficult since there were few clues in their records, drawings or permits regarding the **status** of the tanks. The team had to rely on the memories of past and present...

... funds from states that have underground storage tank excess liability funds.

Notify insurance carriers of **status** changes at sites regarding the number or types of USTs.

Contact equipment and material suppliers...

8/3,K/15 (Item 15 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

01759718 04-10709
Simpler solutions
Mele, Jim
Fleet Owner v94n1 PP: 50-52 Jan 1999
ISSN: 1070-194X JRNL CODE: FOW
WORD COUNT: 821

Fleet Owner

...ABSTRACT: the information that drives those key systems, most often through electronic data interchange of shipment **status** , invoice, and other freight documents. In 1999, according to a wide number of observers, the...
...TEXT: technology. In fact, even many larger fleets have found it necessary to align themselves with **third - party** logistics providers due to the cost and complexity of the required technology.

In a study of shippers completed last summer, approximately one-third said they already rely on **third - party** logistics suppliers for information systems to monitor shipments, manage distribution center operations, select

and route...

... major industries, and "information technology is being viewed as a key to the success of **third - party** operations . . . Customers are relying increasingly on their **third party** logistics service providers for provision of information-based services."

As for the future, the study...

...information that drives those key systems, most often through electronic data interchange (EDI) of shipment **status** , invoice, and other freight documents. For small carriers, the cost of acquiring the needed software...

...DESCRIPTORS: **Third party** administrators

8/3,K/16 (Item 16 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

01759714 04-10705
Keep fishing
Cullen, David
Fleet Owner v94n1 PP: 44 Jan 1999
ISSN: 1070-194X JRNL CODE: FOW
WORD COUNT: 690

Fleet Owner

...ABSTRACT: the ranks by giving their best drivers opportunities to convert from employee to independent contractor **status** .
...TEXT: You can run trucks with fewer or even no mechanics - if you're willing to **outsource** maintenance and repair work to leasing companies,' truck dealers, and other outside service providers.

No...

... foreseeable future trucking will need the same absolute number of technicians. So. the cost of **outsourcing** could rise if providers must pay higher wages to secure enough maintenance personnel to support...
...hand, you can't run trucks without drivers. No one's figured out how to **outsource** that function yet.

Driver recruitment and retention will stay a top concern for years to...

... the ranks by giving their best drivers opportunities to convert from employee to independent contractor **status** .

To entice these prospects, fleets often offer attractive lease/rent-to-own programs on new...

8/3,K/17 (Item 17 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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01739202 03-90192
NTE's new Web site offers interactive link to total supply chain
Anonymous
Fleet Equipment v24n11 PP: 77 Nov 1998

ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 360

Fleet Equipment

...ABSTRACT: upgrade enables NTE's members and their supply chain partners the ability to view the **status** of their shipments for tracking and monitoring purposes.
...TEXT: to enroll as a trial member to access NTE's demonstration system. Visiting shippers and **third party** logistics companies to the Web site can compare their current transportation costs to those available...

... also enables NTE's members and their supply chain partners the ability to view the **status** of their shipments for tracking and monitoring purposes. All of NTE's Member Carriers provide real-time pick-up confirmation, enroute location **status** and delivery confirmation details to NTE. This information is available to NTE's Member Shippers...

8/3,K/18 (Item 18 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

01719481 03-70471
Technology and profit: Crunching more than the numbers
Leavitt, Wendy
Fleet Owner v93n10 PP: 51-55 Oct 1998
ISSN: 1070-194X JRNL CODE: FOW
WORD COUNT: 2111

Fleet Owner
...TEXT: is there, then we move ahead to Requirement Definition, and finally to actually developing or **outsourcing** the solution.

(Photograph Omitted)

Captioned as: CFI has developed a strategic alignment process to make... better evaluate technology investments. If managers treat the Scorecard as a dynamic model of the **status** quo, and choose to track

8/3,K/19 (Item 19 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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01659186 03-10176
Lexicon introduces new protocol environmental compliance program
Anonymous
Fleet Equipment v24n6 PP: 58 Jun 1998
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 285

Fleet Equipment

ABSTRACT: Lexicon Environmental Associates Inc. has introduced the Protocol Environmental Compliance Program as a cost-effective **outsourcing** option to keep facilities in proper environmental compliance.
TEXT: Lexicon introduces new "Protocol Environmental Compliance Program" (PROTOCOL) as a cost-effective **outsourcing** option to keep facilities in proper environmental compliance. "PROTOCOL" was developed to provide

businesses with...

...and "InControl"-inspection and maintenance services. Both programs offer facility owners/operators the opportunity to **outsource** their compliance needs to qualified environmental professionals.
OnPatrol's remote tank monitoring includes continuous electronic surveillance with routine polling of sites each day at scheduled times to request a system **status** report. Its advanced software package links tank sites to Lexicon's Control Center and provides...

8/3,K/20 (Item 20 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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01654881 03-05871
Retreading and more
Mele, Jim
Fleet Owner v93n6 PP: 46-48 Jun 1998
ISSN: 1070-194X JRNL CODE: FOW
WORD COUNT: 1579

Fleet Owner
...TEXT: business, too?" asks Dave Cormier, the national sales director for Hercules Tire and Rubber Co. **Outsourcing** that service to a tire dealer provides quick access to both specialized expertise and computer...

... to include information, analysis, and recommendations, as well as goods and services."

This trend to **outsource** tire management is not limited to large national fleets. "Our total tire management program is...

...facilities.

A year ago, GCR introduced its Total Tire Management Program, offering fleets a completely **outsourced** service from acquisition to disposal. The program is designed to let GCR focus on managing...understand service. And all things being equal. service is going to be the key to **outsourcing** (tire management) for fleets."

(Photograph Omitted)

Michelin North America Inc. Through its affiliated Michelin Retread...

... Inc., Michelin is attempting to help its network of independent dealers move squarely into full **outsourced** tire services. Central to those efforts is a new software suite called Millennium, which was...

... direct electronic connection to dealers, allowing them to check inventories, place orders, and monitor shipment **status** .

"Millennium gives dealers the tools to manage a fleet's entire tire program if that...

... understand all the cost components. That lack has impeded the growth of these types of (**outsourcing**) agreements. Millennium gives them a mechanism to handle more of those agreements."
Oliver Rubber Co...

...it simpler for dealers to offer effective programs and escalate the move to more fleet **outsourcing** . To help spur that growth, Oliver is now offering its dealers a software package from...

... example, "tracking casings is becoming an expected service, so we're helping our dealers find **third - party** suppliers of tracking software and systems," he says. Wheel refurbishing is another service that retreaders...

8/3,K/21 (Item 21 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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01645045 02-96034
When it comes to used trucks, the future is now: Looking beyond the price tag
Moore, Tom
Fleet Owner v93n5 PP: 93-98 May 1998
ISSN: 1070-194X JRNL CODE: FOW
WORD COUNT: 1634

Fleet Owner
...TEXT: trailers. About onethird of his fleet consists of owneroperators -- company drivers he converted to independent **status** . Fleming is quick to admit that his tractor-totrailer ratio is out of whack, but...till the eleventh hour.

Although Davis does his own maintenance in three company shops, he **outsources** tire mounting, engine rebuilds, body work, and front-end alignment. "We could do it ourselves...

8/3,K/22 (Item 22 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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01583958 02-34947
GE Capital Fleet services launches fleet management solutions
Anonymous
Fleet Equipment v24n2 PP: 86 Feb 1998
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 192

Fleet Equipment

...ABSTRACT: Services has introduced Fleet Management Solutions. It provides fleet managers throughout North America with strategic **outsourcing** solutions for more cost-effective and productive fleet management.
...TEXT: of the former Fleet Administration program, that provides fleet managers throughout North America with strategic **outsourcing** solutions for more cost effective and productive fleet management.

Fleet Management Solutions offers fleet managers...

... coordinating day-today administration functions for fleets, including vehicle selector management, replacement planning, inventory management, **status** reporting, value added services coordination and vehicle disposal.

Strategic Management-A GE Capital Fleet Services...

8/3,K/23 **(Item 23** from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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01575610 02-26599
Logistics: Do it yourself
Moore, Tom
Fleet Owner v93n1 PP: 57-58 Jan 1998
ISSN: 1070-194X JRNL CODE: FOW
WORD COUNT: 1376

Fleet Owner
...TEXT: private carriers have been engaged in a high-profile, if deadly, courtship with providers of **outsourced** logistics.

Companies with their own private fleets seemed all too willing to wash their hands...

... Toro and the scores of other companies like it? The reasons are numerous.

HIGH EXPECTATIONS. **Outsourcing** clearly has not been the panacea that many had expected. "Five or six years ago, three out of every ten **outsourcing** arrangements failed," claims Tony Vercillo, a motor carrier consultant who oversees numerous private fleet conversions...
... of that growing failure rate results from the sheer volume. "The amount of requests for **outsourcing** proposals has quadrupled," Vercillo says. "Third parties rush in to quote on the business, thenHistorically, the growth in **outsourcing** was fueled by companies that viewed corporate transportation as a necessary evil. They lacked the...

...corporate headquarters.

In this environment, many fleet managers used their out-of-sight, out-ofmind **status** as a means to build their own personal fiefdom in which success was measured by...

... increasingly dominated by supply-chain management and increased inventory velocity. They became easy targets for **third - party** providers.

But in their haste to wash their hands of transportation liabilities, fleets threw the...

... to the corporate strategic mission. Regardless of whether the fleet is operated in-house or **outsourced** , it must be managed.

TECHNOLOGY GROWTH. Many companies disbanded their private fleets in hopes of...

...rationale for private carriage to support that will become," he says.

CORPORATE STRATEGY. While the **outsourcing** furor of the past decade has subsided somewhat, leaving private carriers to flex their muscles...

... success belongs to those who link their transportation to the overall corporate strategy. "Companies wanted **outsourcing** to solve all their problems," says Hallal. "But it didn't always work out that way. You can't **outsource** responsibility and accountability."

(Graph Omitted)

Captioned as: OVER THE PAST FIVE YEARS, HOW HAS YOUR...

8/3,K/24 (Item 24 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

00931768 95-81160
The changing face of leasing
Deierlein, Bob
Fleet Equipment v20n10 PP: 34-39 Oct 1994
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 2273

Fleet Equipment
...TEXT: fleet already operate maintenance facilities and have qualified mechanics. But more important was its financial **status** and whether it had a better use for its capital. If so, then the choice...

... equipment, being sure to include ALL costs involved, and compare it to the cost of " **outsourcing** ," a term being used since there are so many alternatives to full-service leasing.

Outsourcing alternatives

Alternatives to leasing, including open end (Total Rental Adjustment Clauses, TRAC) and closed end...
...a finance lease agreement.

Dedicated logistics offers you a complete turn-key system whereby a **third party** dedicates resources to manage the movement of your inventory. This includes the inbound transportation of...

...manufacturing.

* Complete warehousing facilities and inventory management systems.

Exel Logistics is one of the largest **third party** logistics specialists and reports great success helping many companies with specific **outsourcing** requirements. For example, Procter and Gamble reduced its on-hand inventory, cut the number of...a 1,100-unit fleet scattered throughout the country and has found some very useful **outsourcing** programs. He says, "One is with the TruckVantage group within GE. It manages the maintenance. ...

...cost of an outside maintenance facility."

Full service benefits
Full-service leasing, the most popular **outsourced** service, clearly fills the needs of these PacLease customers:

* Capital Lumber, Heraldsburg, Calif. "Never in...

8/3,K/25 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

10724722 Supplier Number: 107723021 (USE FORMAT 7 FOR FULLTEXT)
Trailer Tracking: Ready at last.
Fleet Owner, v98, n9, pNA
Sept 1, 2003
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 2076

... to customers and paper packaging between company facilities. In Oct. 2001, Menasha began using a **third party** to install Terion's FleetView system in its trailers and ...believes.

Now the fleet is working with its trailer-tracking provider to develop a load **status** sensor that will work with its drop-and-hook mode of operation. "We're actually...

8/3,K/26 (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

09928232 Supplier Number: 88679761 (USE FORMAT 7 FOR FULLTEXT)
CDLs threaten security. (commercial drivers licenses) (Brief Article)
Fleet Owner, pNA
June 1, 2002
Language: English Record Type: Fulltext
Article Type: Brief Article
Document Type: Magazine/Journal; Trade
Word Count: 666

... Illinois and Florida who obtained fraudulent licenses and transferred to other States. In 2000, a **third - party** examiner in Georgia was accused of illegally selling over 500 CDLs. After Sept. 11, the...

...CDL applicants to show proof of state residency and U.S. citizenship or legal alien **status** and that states check applicant social security numbers against government records to make sure they...

8/3,K/27 (Item 3 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

09716990 Supplier Number: 84435504 (USE FORMAT 7 FOR FULLTEXT)
Telematics: The next generation of wireless data; Some fleets have been tracking trucks remotely for over a decade; but is the industry ready for telematics? (Cover Story).
Mele, Jim
Fleet Owner, v97, n2, p80(1)
Feb, 2002
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 1914

... Initially, at least, services will be stand-alone and offer little or no integration with **third - party** applications.

Trucking became the first vertical market for wireless data systems because those systems offered fleets a solid return on investment by allowing dispatchers to track vehicle and load **status** more efficiently, says Norm Ellis, vp of business operations for Qualcomm Wireless Business

Solutions. Two...shaping up to be an OEM-provided technology, were does that leave trucking's current **third - party** providers? Probably in the same position they occupy today--providing high-value fleet management services...

8/3,K/28 (Item 4 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

09380197 Supplier Number: 82015140 (USE FORMAT 7 FOR FULLTEXT)
Two RFID-based applications. (Truck.com).(Brief Article)
Fleet Owner, v96, n12, p67(1)
Dec, 2001
Language: English Record Type: Fulltext
Article Type: Brief Article
Document Type: Magazine/Journal; Trade
Word Count: 208

Designed for private fleet, less-than-truckload, **third - party** logistics, package delivery carrier, and intermodal container yards, SmartYard uses mobile or handheld data terminals...

...according to developer TransCore. It also automates reporting on cross-dock operations, yard moves, equipment **status** , arrivals and departures, and shipment tracking. It is platform and database independent, operating on all...

8/3,K/29 (Item 5 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

08589961 Supplier Number: 64788495 (USE FORMAT 7 FOR FULLTEXT)
Data, data everywhere.(software for fleet logistics)(Industry Overview)
LEAVITT, WENDY
Fleet Owner, v95, n8, p95
August, 2000
Language: English Record Type: Fulltext
Article Type: Industry Overview
Document Type: Magazine/Journal; Trade
Word Count: 2876

... so much good information -- about routing and vehicle locations, available capacity and backhaul opportunities, load **status** and delivery expectations. It's amazing and overwhelming. It's a classic example of the **third - party** logistics providers (3PLs) to collaboratively manage the shipment and delivery process.
"Our network is a...

8/3,K/30 (Item 6 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

07605942 Supplier Number: 59552993 (USE FORMAT 7 FOR FULLTEXT)
Interview: Carl Kirk.
Bennett, Stephen
Truck Fleet Management, v78, n1, p36
Jan, 2000

Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 1042

... containing technologically advanced equipment. Those fleets may determine that it is more cost effective to **outsource** their maintenance needs to OEM dealer networks.
How's the TMC exhibit shaping up this...

...to it that ATA fairly represents the industry on equipment-related matters.
What's the **status** of TMC's Vehicle Maintenance Reporting System?
TMC has completed a total overhaul of the...

8/3,K/31 (Item 7 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

06930733 Supplier Number: 58545808 (USE FORMAT 7 FOR FULLTEXT)
Regulatory Scorecard.
Fleet Owner, v94, n12, p14
Dec, 1999
Language: English Record Type: Fulltext
Document Type: Magazine/Journal
Word Count: 1037

... apply by phone, mail, fax,
or computer before seeking safety and/or
performance reports from **third - party** providers.
Applicants must be told that a report
may be requested, but can consent orally...

...external ABS malfunction lamps
no longer required on new trailers.
Cargo Liability DOT report maintains **status** quo.
Cargo Tanks Effective 7/1/99
Conspicuity, Tractors Final rule in effect.
Conspicuity, Trailers Effective 6/1/99
Drains, Runoff New rules grant "No-Exposure Certification" **status** to fleets that qualify, exempting them from stormwater permit regs.
Driver Language FHWA is collecting...

8/3,K/32 (Item 1 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
(c) 2003 Resp. DB Svcs. All rts. reserv.

3408499 Supplier Number: 03408499 (USE FORMAT 7 OR 9 FOR FULLTEXT)
Rethinking leasing.
(Trends in the truck and trailer leasing industry, post-9/11)
Fleet Owner , v 97, n 2, p 23(3)
February 2002
DOCUMENT TYPE: Journal ISSN: 0731-9622 (United States)
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 1831

(USE FORMAT 7 OR 9 FOR FULLTEXT)
Fleet Owner

TEXT:
...as emergency road service and vehicle rentals."

Full-service leasing also enables Western Nevada to **outsource** some of the more expensive aspects of running a fleet, including vehicle maintenance, while still...brokerage services."

The tough economic climate means that more fleets are willing to challenge the **status** quo in order to reduce both the cost and risk in their operations, says Leinbach...

8/3,K/33 (Item 2 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
(c) 2003 Resp. DB Svcs. All rts. reserv.

3408493 Supplier Number: 03408493 (USE FORMAT 7 OR 9 FOR FULLTEXT)
Telematics: The next generation of wireless data; Some fleets have been tracking trucks remotely for over a decade; but is the industry ready for telematics? (Cover Story)

Fleet Owner , v 97, n 2, p 80(1)
February 2002
DOCUMENT TYPE: Journal ISSN: 0731-9622 (United States)
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 1758

(USE FORMAT 7 OR 9 FOR FULLTEXT)
Fleet Owner

TEXT:
...Initially, at least, services will be stand-alone and offer little or no integration with **third - party** applications.

Trucking became the first vertical market for wireless data systems because those systems offered fleets a solid return on investment by allowing dispatchers to track vehicle and load **status** more efficiently, says Norm Ellis, vp of business operations for Qualcomm Wireless Business Solutions. Two...shaping up to be an OEM-provided technology, were does that leave trucking's current **third - party** providers? Probably in the same position they occupy today--providing high-value fleet management services ...

8/3,K/34 (Item 1 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2003 The Gale Group. All rts. reserv.

05484849 Supplier Number: 97759111 (USE FORMAT 7 FOR FULLTEXT)
A taste of southern hospitality..
Trailer/Body Builders, v44, n3, pNA
Jan 1, 2003
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 3211

... on Federal Excise Tax Issues," Sunday, March 2, 3 pm-4:15 pm: Learn the **status** of federal excise tax (FET) laws and regulations related to truck and transportation equipment. Better...earn over $100,000 annually with 90% decision-making control and achieve Vice President/Director **status** . Learn how to apply world-class Fortune 500 company practices in ...use strategic alliances with manufacturers, resellers, specialists and funding sources to avoid and overcome turnkey **outsource** attacks. Presenter: Walker.

"The Changing Nature of Fleet Management," Monday, March 3, 9:30 am ...

8/3,K/35 (Item 2 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2003 The Gale Group. All rts. reserv.

05340900 Supplier Number: 90473143 (USE FORMAT 7 FOR FULLTEXT)
Fast truck equipment.
Trailer/Body Builders, pNA
July 1, 2002
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 2397

... For example, he expects to be able to give dealers the ability to check the **status** of their jobs via the web site. He is working on that objective through the use of Connx, a **third - party** ODBC driver (open database connectivity) that accesses the data already in the company's Spokane...

8/3,K/36 (Item 3 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2003 The Gale Group. All rts. reserv.

05309612 Supplier Number: 88680605 (USE FORMAT 7 FOR FULLTEXT)
System accelerates ISO registration process.
Trailer/Body Builders, pNA
May 1, 2002
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 136

... in two to three months. Thereafter, this system can undergo an ISO registration with a **third - party** registrar that will render official registration **status** for that company.

For more details, phone 416-804-8318 or 905-792-2205, ext...

8/3,K/37 (Item 4 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2003 The Gale Group. All rts. reserv.

05071293 Supplier Number: 77870388 (USE FORMAT 7 FOR FULLTEXT)
Hyundai - New Name, New Markets.
Trailer/Body Builders, p16
August 1, 2001
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 2053

... the Tijuana plant produced 25,000 containers last year.

Do It Yourself

Until recently, Hyundai **outsourced** a major portion of its fabricated parts. But the expanded Hyundai plant gives the company...and part has an SAP number," Shidler explains. "With that number, we can track the **status** of every unit we produce. It enables us to know exactly how many parts and...

8/3,K/38 (Item 5 from file: 636)

DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2003 The Gale Group. All rts. reserv.

04915764 Supplier Number: 70773861 (USE FORMAT 7 FOR FULLTEXT)
Industry NewsDesk.
Trailer/Body Builders, pNA
Feb, 2001
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 2979

Search Report from Ginger R. DeMille

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? show files
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         (c) 2003 ProQuest Info&Learning
File  16:Gale Group PROMT(R) 1990-2003/Sep 24
         (c) 2003 The Gale Group
File 148:Gale Group Trade & Industry DB 1976-2003/Sep 25
         (c)2003 The Gale Group
File 160:Gale Group PROMT(R) 1972-1989
         (c) 1999 The Gale Group
File 275:Gale Group Computer DB(TM) 1983-2003/Sep 24
         (c) 2003 The Gale Group
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         (c) 2003 The Gale Group
File   9:Business & Industry(R) Jul/1994-2003/Sep 24
         (c) 2003 Resp. DB Svcs.
File  20:Dialog Global Reporter 1997-2003/Sep 25
         (c) 2003 The Dialog Corp.
File 476:Financial Times Fulltext 1982-2003/Sep 25
         (c) 2003 Financial Times Ltd
File 610:Business Wire 1999-2003/Sep 25
         (c) 2003 Business Wire.
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         (c) 2003 PR Newswire Association Inc
File 634:San Jose Mercury  Jun 1985-2003/Sep 23
         (c) 2003 San Jose Mercury News
File 636:Gale Group Newsletter DB(TM) 1987-2003/Sep 24
         (c) 2003 The Gale Group
File 810:Business Wire 1986-1999/Feb 28
         (c) 1999 Business Wire
File 813:PR Newswire 1987-1999/Apr 30
         (c) 1999 PR Newswire Association Inc
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         (c) 2003 Resp. DB Svcs.
File  75:TGG Management Contents(R) 86-2003/Sep W2
         (c) 2003 The Gale Group
File  63:Transport Res(TRIS) 1970-2003/Aug
         (c) fmt only 2003 Dialog Corp.
? ds

Set     Items   Description
S1      18669   JN=(FLEET? OR TRUCK? OR TRAILER? OR TRAILOR?)
S2      92636   (AVAILABLE OR AVAILABILITY)(3N)(STATUS OR CHECK OR CHECKS -
             OR CHECKING)
S3         22   S1 AND S2
S4         19   RD (unique items)
? t4/3,k/all

 4/3,K/1     (Item 1 from file: 15)
DIALOG(R)File  15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02493061  222206451
Editorial:  Simpler is better
Skydel, Seth
 Fleet Equipment   v28n10  PP: 8  Oct 2002
ISSN: 0747-2544  JRNL CODE: FEQ
WORD COUNT: 784

 Fleet Equipment
...TEXT: Drive Train Plus Advantage program. A fleet's local OEM dealership
will be able to  check  coverage  availability  and pricing, and apply
```

on-line based on the product and its application.

ArvinMeritor is...

4/3,K/2 (Item 2 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02429396 190927601
Spec'ing for the big chill
Birkland, Carol
Fleet Equipment v28n9 PP: 16-21 Sep 2002
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 3390

Fleet Equipment
...TEXT: of the determination."

Once TIP consultants have finished gathering data at the customer location they **check** stock trailers for **availability** . When needed, new trailers are ordered with the customer's specifications. Information on TIP's...

4/3,K/3 (Item 3 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02414231 155779791
Browsing on the road
Mele, Jim
Fleet Owner v97n8 PP: 80-82 Aug 2002
ISSN: 1070-194X JRNL CODE: FOW
WORD COUNT: 1000

Fleet Owner
...TEXT: planning applications, accounting and customer service without any additional data-entry steps. Similarly, real-time **status** is **available** on deliveries for every portion of the operation that can use it.

Looking beyond LTL...

4/3,K/4 (Item 4 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02381527 127301611
Fleets online
Kilcarr, Sean
Fleet Owner v97n6 PP: 88 Jun 2002
ISSN: 1070-194X JRNL CODE: FOW
WORD COUNT: 503

Fleet Owner

...ABSTRACT: over 225 satellite tracking units installed on the trucks working at the WTC site, with **status** updates **available** in real-time via an Internet connection to DDC.
...TEXT: over 225 satellite tracking units installed on the trucks working

at the WTC site, with **status** updates **available** in real-time via an Internet connection to DDC.

Yoram Shalmon, director of product management...

4/3,K/5 (Item 5 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02097206 64828668
Training expenses
Zall, Milton
Fleet Equipment v26n11 PP: 29-32 Nov 2000
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 1598

Fleet Equipment
...TEXT: They maybe able to provide certain training programs at a reduced or no cost. Also **check** on the **availability** of grants, state aid or tax credits to help you pay the bill. You may...

4/3,K/6 (Item 6 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02067999 60931315
Fleet management via the Web
Buxbaum, Peter
Fleet Equipment v26n9 PP: 45-48 Sep 2000
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 1221

Fleet Equipment
...TEXT: Diversified's eTruck.net website. At that point Diversified and its customers have complete information **available** regarding the **status** of their orders and shipments. Eventually, Corrente expects that the web information will be integrated...

4/3,K/7 (Item 7 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

02003358 51677929
Recruiting via the Internet
Buxbaum, Peter
Fleet Equipment v26n3 PP: B1-B3 Mar 2000
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 1834

Fleet Equipment

...ABSTRACT: the site, the driver also has the opportunity to click on the employment section and **check** out the **available** jobs.
...TEXT: the site, the driver also has the opportunity to click on the employment section and **check** out the **available** jobs. The site is supported by the advertising dollars of the fleets that post their...

4/3,K/8 (Item 8 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

01967589 46777283
The value of EBS
Breininger, Laurie
Fleet Owner PP: 47 1999
ISSN: 1070-194X JRNL CODE: FOW
WORD COUNT: 548

Fleet Owner
...TEXT: examinations and even potential dynamometer testing can be eliminated. All the data required for these **checks** will be **available** in the system for telemetering rather than manual inspections and waiting lines. The elimination of...

4/3,K/9 (Item 9 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

01874012 05-25004
Starting and operating a small business
Zall, Milton
Fleet Equipment v25n8 PP: B5-B8 Aug 1999
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 2406

Fleet Equipment
...TEXT: business' monetary supply can either come from cash on hand or be in a business **checking** account **available** to meet expenses. A sufficient cash flow covers your business by meeting obligations (paying bills...

4/3,K/10 (Item 10 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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01845935 04-96926
How can you know?
Deierlein, Bob
Fleet Equipment v25n6 PP: B4-B8 Jun 1999
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 1086

Fleet Equipment
...TEXT: to include location, number of times called in the last six months, percentage utilized, preferred **status** and 24-hour **availability**
."

(Photograph Omitted)

Captioned as: Increasingly sophisticated engine designs, long term warranties and the shortage of...

4/3,K/11 (Item 11 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)

(c) 2003 ProQuest Info&Learning. All rts. reserv.

01069817 97-19211
Handling refrigerants
Birkland, Carol
Fleet Equipment v21n7 PP: 42-46 Jul 1995
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 2422

Fleet Equipment
...TEXT: supplier supports the product. Ask if the supplier provides set-up and training. In addition, **check** out the **availability** of parts and service."

There are currently some fifty companies that manufacture refrigerant recovery and...

4/3,K/12 (Item 12 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

01020815 96-70208
Start with a "trainable" mechanic
Anonymous
Fleet Equipment v21n4 (Resource Directory) PP: 26 Apr 1995
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 860

Fleet Equipment
...TEXT: shifting problem.

C. Change the fluid and filter, then clean and adjust the modulator.

D. **Check** on the **availability** of replacement before beginning work.

You see a fellow mechanic trying to explain a new...

4/3,K/13 (Item 13 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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00652985 93-02206
A Million Miles Plus
Deierlein, Bob
Fleet Equipment v18n12 PP: 28-31 Dec 1992
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 1728

Fleet Equipment
...TEXT: than conventional designs.

* Check for ductile--hardened cast equalizers.

* Use air-ride suspensions, but carefully **check** the features **available** on the various makes to get the one that matches your needs.

* Look into warranties...

4/3,K/14 (Item 14 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

00535873 91-10217
Failure Analysis: One Step at a Time
Birkland, Carol
Fleet Equipment v17n2 PP: 28-31 Feb 1991
ISSN: 0747-2544 JRNL CODE: FEQ
WORD COUNT: 3041

Fleet Equipment

...ABSTRACT: Some guidelines for a fleet maintenance failure analysis program include: 1. Make vehicle histories readily **available** . 2. **Check** systems associated with failures. 3. Develop a consistent method of collecting, analyzing, storing, or returning...

4/3,K/15 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

09972411 Supplier Number: 90091515 (USE FORMAT 7 FOR FULLTEXT)
Browsing on the Road.(trucking industry's usage of the internet)
Fleet Owner, pNA
August 1, 2002
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 1093

... planning applications, accounting and customer service without any additional data-entry steps. Similarly, real-time **status** is **available** on deliveries for every portion of the operation that can use it.
Looking beyond LTL...

4/3,K/16 (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

09380199 Supplier Number: 82015142 (USE FORMAT 7 FOR FULLTEXT)
Service reporting automated. (Truck.com).(new software from PeopleNet Communications Corp.)(Brief Article)
Fleet Owner, v96, n12, p68(1)
Dec, 2001
Language: English Record Type: Fulltext
Article Type: Brief Article
Document Type: Magazine/Journal; Trade
Word Count: 152

... when a vehicle reaches and leaves a delivery point, automatically updating records to show load **status** . Commercial **availability** for PACOS is expected in January.
Speaking during the American Trucking Assns.' conference, PeopleNet general...

4/3,K/17 (Item 3 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

07424319 Supplier Number: 61970144 (USE FORMAT 7 FOR FULLTEXT)
DISPATCH SOLUTIONS. (Prophesy Dispatch software for transportation companies) (Brief Article)
Truck Fleet Management, v78, n4, p49
April, 2000
Language: English Record Type: Fulltext
Article Type: Brief Article
Document Type: Magazine/Journal; Trade
Word Count: 154

... dispatch, freight billing, revenue settlement/driver advances, fuel tax calculations, pending load board, Internet shipment **status** , a view of **available** drivers and equipment, customer-specific rating, split trip handling, trailer tracking and single-user or...

4/3,K/18 (Item 1 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
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05453117 Supplier Number: 96132835 (USE FORMAT 7 FOR FULLTEXT)
Trailer dealers convene in Toronto.
Trailer/Body Builders, v44, n2, pNA
Dec 1, 2002
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 1453

... efficiencies of their vendors; higher levels of service; and access to better information in product **availability** and order **status** .
How would manufacturers benefit if working relationships improved? They would lower their costs; increase sales...

4/3,K/19 (Item 2 from file: 636)
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05434657 Supplier Number: 95101222 (USE FORMAT 7 FOR FULLTEXT)
Product Profiles.
Trailer/Body Builders, v44, n1, pNA
Nov 1, 2002
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 1513

... Availability" to its XpresswayPlus.com online ordering system. "Price and Availability" enables customers to quickly **check** prices and stock **availability** for a list of part numbers without having to build a shopping cart.
To use...
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Search Report from Ginger R. DeMille

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File  15:ABI/Inform(R) 1971-2003/Sep 26
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Set     Items   Description
S1         54   (HAND?()OFF OR HANDOFF)(S)(PACKAGE? OR FREIGHT OR SHIPMENT?
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                )()(CARRIER? ? OR TRUCK? ? OR VEHICLE? ? OR FLEET OR SHIP OR -
                TRAILER?)
S2         49   RD (unique items)
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File 13:BAMP 2003/Sep W2
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DIALOG(R)File 13:BAMP
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1028266 Supplier Number: 00837858 (THIS IS THE FULLTEXT)
THE PAPERLESS ENVIRONMENT
(The transportation industry is rapidly moving from a labor-intensive, manual environment to one that is moving toward automating the entire shipping process)
Article Author(s): Zuckerman, Amy
Traffic World, p 26-30
June 17, 1996
WORD COUNT: 3102

TEXT:
Transport, logistics industries hungry for productivity-boosting new technology

by Amy Zuckerman

Special to Traffic World

Type http://www.roadway.com on your PC and you will access Roadway Express' Worldwide Web page on the Internet. With a few additional keystrokes, you can ask for the status of your shipment and in seconds learn exactly where it is within Roadway's vast system.

Welcome to the world of cyberspace shipping. Roadway is just one of a number of carriers going "online" with this type of tracking function. Using a basic PC and modem, customers can log on and quickly check on their goods in transit.

But the Internet is only one development in the technology revolution that's sweeping the transport, logistics and shipping industries. As companies seek to both eliminate paper functions and create reliable, seamless global shipping to maintain a competitive edge, they are gobbling up advanced technologies as fast as they can be created.

Move into the field and you'll find carriers and their logistics partners arranging truckloads via the Internet, using imaging technology for electronic billing, or even creating software that links satellite communications with computer-based technology for improved tracking of shipments. And all of this activity is taking place simultaneously with -- or sometimes linked to -- electronic data interchange efforts. (See part two of this series, Traffic World, May 20, 1996.)

Some larger carriers like Roadway and Contract Freighters Inc., logistics specialists like Customized Transportation Inc., and steamship lines such as Crowley American Transport are literally becoming software manufacturers -- creating proprietary software that allows them to computerize just about every aspect of the shipping/distribution process. A burgeoning group of software manufacturers nationwide are providing packages, or even complete software systems, to help small and midsize companies enter the world of electronic commerce.

photo omitted

"We're moving from a manual, labor-intensive environment to Star Wars," said Mike Walczak, president of software manufacturer Loadlink, which creates a potpourri of software to handle both domestic and international shipping needs. "Transportation is going from zero to a thousand miles an hour, and is doing it in two seconds, literally. The degree of change and investment being made is enormous."

According to Walczak, "the trend now is toward automating the entire shipping process from the automatic selection of a carrier and mode of transport on the shipping side, to the tracking and tracing of a shipment. We're providing a seamless system based on technology, from the manufacturing order to the managing of inbound raw materials and then managing the outbound side (to final destination)."

"Our goal is to automate the entire management of inbound and outbound traffic, both domestic and international," said Michael Neary, vice president of marketing for Ontario-based Kitimat Systems. "We may even move off this planet if the need arises." (See box, page 27.)

"A lot of what is driving automation is global competition, which means that companies are re-examining every facet of their business," Neary said. "Shipping costs range from 5 to 12 percent of total revenue. We're coming along and saying, 'if you automate that process, we can save you up to 15 to 20 percent.'"

The forces of competition, domestically and globally, are demanding that manufacturers reduce cycle times and cut inventories. In that quest, they're shifting from a push to a pull supply chain, manufacturing more products to order and shipping more goods just-in-time, all of which is forcing the transport/logistics industries to reorient how they do business and transforming the warehouse into a turning point. Advanced technologies, ranging from radio frequency identification to satellite communications, become critical factors in speedy, reliable shipping and distribution because they provide complete visibility of shipments in transit with little or no lag time.

"The velocity of information is critical, said Bob Schotman, director of customer services information technology at Jacksonville, Fla.-based CTI. "In today's or yesterday's world, drivers come off an assignment and give a handheld computer to a dispatcher. They put the computer in a cradle and the information goes into a host system. That information becomes the basis for cross-docking operations."

Cross-docking allows shipments being offloaded at one door of a dock to immediately be transferred to a loading area and incorporated into an outgoing shipment, without ever going into storage.

CTI software designers already are working on improving the system Schotman describes by connecting the warehouse-based computers via satellite to incoming trucks. That will mean information on deliveries can flow at all times and processing will not have to wait for drivers to arrive at a terminal.

"This new system will feed information almost real-time," said Schotman. "It will allow those planning cross-docking operations more lead time and more management time."
The changes Walczak, Neary and Schotman describe are taking place in all segments of the transport industry. For example, Crowley American Transport

and nine other steamship lines have created an Information System Agreement to promote electronic business communications. The companies jointly developed a Windows-based software called OCEAN that allows customers and steamship lines to communicate electronically in a standardized fashion and, in so doing, gain better control of shipping documents.

As for how many shippers are taking advantage of these sorts of technological advancements, Walczak said much of the technology described is still the province of major carriers. As for shippers, he said, "only 10 to 20 percent have any degree of automation, though obviously, if you take the Fortune 500 -- the Fords, GMs and DuPonts -- they may have automated to a great degree. The multinationals represent the tip of an iceberg. This is a whole emerging market."

Many of the carriers and shippers Walczak encounters are deciding how much to invest in technology. "They have degrees of automation in place ranging from nothing to the most sophisticated you can imagine. Most have automated accounting and may even have automated maintenance, but haven't reached the level of sophistication where they can seamlessly integrate information, or even gather information."
"Do I buy a package or build one?" is a common question that Walczak encounters. He finds most want to buy because "it's expensive to build your own system. And if you buy, all you need is a PC."

Eliminating Paper Functions

To meet that market -- which is growing daily as government agencies such as the U.S. Customs Service push carriers online -- software manufacturers like Loadlink are racing to create products that will eliminate paper functions. Areas where documentation is being computerized include:

* Outbound shipping

* Inbound shipping

* Load consolidation (inbound and outbound)

* Loss and damage claims

* Return merchandise authorization

* Export documentation
* Updating of carrier rates

* Automation of freight audits and payment portions

* Inbound schedules

Following is a more detailed look at how carriers and software manufacturers are working alone and in tandem to automate a wide variety of shipping/distribution functions.

Billing and Rating. It's not surprising that the financial areas of billing and rating are receiving a good deal of attention from those intent on automating the shipping/distribution process. At Joplin, Mo.-based Contract Freighters, for example, creating a paperless billing system is a main concern, according to Mark Swab, vice president of information services.

In the financial areas, EDI often is coupled with application software and an imaging system so that even handwritten bills can be scanned into a computer system for processing. The information is then transmitted to

customers via EDI, which is technologically well-suited to the high-speed transmission of vast quantities of data.
This is the case at CFI, where Swab said that "EDI is used to bill out the load and receive payments via funds transfers and other methods. Everything else is handled through the imaging process, meaning scanning or receiving information through a fax modem system. That information goes through an IBM ASA/400" computer.

"We used to send a bill of lading to a rating center and the paper would have to get there before the freight could be rated," said Bob Oboe, vice president of operations, planning and engineering at Roadway Express. That process was computerized five years ago with the installation of an electronic billing and rating system.

Another reason for automating billing processes is to gather valuable marketing and sales information that is contained in the bills. Explains Glenn Schicker, logistics coordinator at paper manufacturer Madden Corp., a freight bill "contains a great deal of retrievable information."

For this reason, Madden hired software manufacturer Strategic Technologies Inc. to automate its third-party freight payments. STI then "set up an interface so we can download the freight-bill information at will and capture all the information we can," Schicker said.
Bill of Lading and Delivery Receipt. Carriers and shippers, alike, are intent on automating their bills of lading and delivery receipts. Not only does electronic transmission mean eliminating massive amounts of paper, but it allows for quick information flow for faster and more accurate tracking of shipments.

At Roadway Express, for instance, bills of lading used to be filed at local terminals. "They're now scanned and sent to one of 30 Imaging Processing Centers nationwide where they're stored electronically, or can be printed out and faxed" to customers, according to Cindy Frick, manager of performance engineering.

Frick said Roadway Express is in the process of automating its delivery receipt system, as well. Currently, delivery receipt records are kept on microfilm, which means extra time for processing and some delay when customers want information. When the imaging center can handle delivery receipts along with bills of lading, then information will be available far more quickly.

"With imaging, the delivery receipt can be called up and sent out almost immediately," said Obee. "Anything we can do to speed up the process not only helps us, but helps the customer."
"One of the things we're going to be using imaging for is to tie it in with our invoicing structure," adds Heidi Ehmann, Roadway's imaging project specialist. "With imaging we can provide all the invoices with bills of lading and delivery receipts and ship just one envelope from headquarters instead of several from all over the country."

At Crowley American Transport, Mark Miller said the imaging system "essentially allows people to fax us their shipping documents and the faxes go directly into the computer system. At present, it's a read-only system. We can't correct or type in additional information. One of the benefits, of course, is that the documents are only a couple of keystrokes away."

photo omitted

Carrier Performance. Carrier performance and selection is another major concern of shippers and manufacturers, according to Loadlink's Walczak. He

said his customers are seeking electronic aids to answer such questions as: Are the carriers living up to their contracts and giving me the level of service I want? Is it possible to eliminate positions and reduce the need for phone calls? How do I get the information I need to make intelligent decisions? What carrier should I use and, when I'm negotiating, what basis do I have for selecting a carrier? And how can I make certain the carriers are supplying all the information I need to make an accurate analysis?

To meet these needs Loadlink is developing a database software to address carrier performance that shippers will be able to use on in-house PC systems. The product will allow for "data capture to supply information the shippers need (to assess their carriers)" and will be able to be applied to whatever data transmission system the shipper uses, whether Internet, EDI or other, according to Walczak.

Building Shipments and Fleet Management. Walczak also is concentrating on areas such as building shipments electronically and optimizing the loading process so that shippers "get the best price for theft services." Another related area of concern is electronically "optimizing the shipment of goods by pulling or consolidating shipments from multiple plants."

At truckload carrier Contract Freighters, there's an effort to use a PC/EDI combination to automate the booking of loads and to electronically provide status information on shipments. When this system is up and running, fewer orders will be made over the phone and paperwork will be reduced, according to Swab.

"As of today, the imaging part of the process is 75 percent complete. We have a third party developing software (to back up the process) and are already using satellite tracking of shipments. We've been doing EDI (the transmission technology) for a long time."

Fleet management is another function that can be addressed electronically. Walczak says this issue came up at a recent Washington conference on satellite tracking where carriers reported "they not only want to manage a fleet, but to be able to capture information on the status of a shipment and provide proof of delivery."

Dispatch and Shipment Data. The technology services department at CTI, a CSX Corp. subsidiary, is devoting a good deal of time and energy to developing proprietary software to automate the dispatch process. Everything from dispatcher schedules to managing assets at loading docks is being analyzed for electronic treatment, according to Ruby Raley, director of technology services.

Because customers want to be able to track shipments, and CTI dispatchers need to be able to control shipments, the screen is color-coded to indicate pickup information on bill of lading and global positioning. This way, says Raley, it's possible to tell at a glance "whether a shipment is going awry or going well. We can analyze information coming back from the truck all the time. If they're going to be late, it sets up an alert or the driver can manually initiate an alert."

The aim, she explains, is to "put more tools in the hands of management. The whole system is summarized (on one screen) instead of having managers look at individual computers to see what's right or wrong. This plan reflects the change to third-party logistics where there's less inventorying and less leeway for delivery."

In a related area, Roadway Express is better controlling its shipping process at the loading docks. Shipment information is scanned from barcodes

directly into the company's mainframe in Akron, Ohio. Advice on shipment status then is fed back to the terminals.

Record-Keeping. Electronic record-keeping is becoming crucial for any carrier or shipper involved in international trade as both the U.S. Customs Service and the Bureau of Export Administration have new, stringent record-keeping requirements in place. Moreover, records are highly paper-intensive and reducing paper means reducing costs.

Carriers like CFI have made automation of their safety department records a prime goal, as well. As Swab explains, electronic processing not only reduces paper, but allows CFI to access information useful for hiring drivers.

Supply Chain Control and Inventory Management. Computerization is playing a major role in both altering and controlling the supply chain, as well as how companies conduct inventory management. Marketing data that indicate customer preferences or trends may be buried in freight documents, for example. This information, when sorted and analyzed, can help a manufacturer/shipper with ordering of raw materials and other production concerns. Tighter production schedules and just-in-time shipping translates into less inventory.

Strategic Technologies Inc. specializes in data analysis software packages. For companies like Madden Corp. STI has developed systems that allow for the creation of electronic reports that can be accessed online so that no paper passes hands.

CTI's technology-management division is working on developing proprietary products for automotive companies that will precisely manage the flow of inbound materials to a manufacturing site. "The computer program picks up or receives the customer's (assembly line) requirements," explained Schotman. "Then, in a simple way, the computer system makes sure the truck picks up exactly what the customer wants picked up from the suppliers -- no more and no less."

Internet. Roadway Express is not the only company exploring use of the Internet for data transmission and shipment tracking. Despite security problems, companies like CSX Transportation, Federal Express, United Parcel Service, Skyway Freight and others already provide that service and many more are exploring Internet applications for customer service.

"It's pretty obvious that everyone's going to be considering use of the Internet to distribute data," according to Raley at CTI. "Many logistics companies are looking at worldwide distribution of data this way. They'll also look at cellular and other networks to complicate even the complicated solutions we have today."

"We have a number of clients moving definitively in the direction of accessing our Oracle files via the Worldwide Web," added Paul White, vice president of STI. "One of our largest clients is putting out reports on STI's web site so they can access them internally."

Both Crowley American Transport and Columbus Line USA are in the process of designing web pages. Crowley's is expected to be online this summer.
Overall Benefits

Whether it's reducing paper, budgeting freight costs, eliminating job functions, processing employee applications faster or improving shipment analyses, transport and logistics companies as well as shippers report no end of benefits from automation.

"Since we've been able to download information electronically, we've been able to analyze our raft, intermodal and buck distribution throughout the country," said Schicker of Madden Corp. "This helps us look at how we're spending money by mode and enables us to meet the customer's needs at the most optimal cost factors. We've also been able to link information we download from our warehouses on a daily basis, which means flexibility."

"The system also helps us budget our freight costs for the upcoming year, which means a big impact on our logistics budget," added Warren Cohen, Madden's vice president of logistics. "Before, we didn't have a sense of logistics costs and couldn't benchmark those costs. We couldn't go back to our Finnish owners and tell them our distribution costs in the U.S. because we'd really be guessing."

CFI's Swab said the company's imaging system for billing paid back its expense "within two years. We managed to eliminate job functions and time for bill processing. In terms of the safety department (automation), we were able to get applications processed faster. A good driver is a rare commodity. We're hoping this will provide faster turnaround on reference checks so we can hire quickly and get driver information at our fingertips."

"In the paper environment, the shipping documents would come into a fax machine, someone would pull them off, do the data-entry work and file them away," says Mark Miller, manager of advertising and public relations at Crowley American Transport. "If someone called in a request, we'd have to call them back or put them on hold and find the documents somewhere. Now everything is just a couple of keystrokes away."

-- Zuckerman is a freelance writer based in Amherst, Mass. Her associate Eddy Goldberg helped research this article.

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02381527 127301611
Fleets online
Kilcarr, Sean
Fleet Owner v97n6 PP: 88 Jun 2002 ISSN: 1070-194X JRNL CODE: FOW
DOC TYPE: Periodical; Feature LANGUAGE: English RECORD TYPE: Fulltext
LENGTH: 1 Pages
SPECIAL FEATURE: Photograph
WORD COUNT: 503

ABSTRACT: The routine nature of the tasks carried out by New York City's Department of Design and Construction came to an abrupt halt on Sept. 11, 2001. With guidance from FEMA and others, DDC tried to bring order to the debris removal process at the devastated WTC site. DDC had to find a way to monitor the activities of all the trucks involved. PowerLOC Technologies, located in Richmond Hill, Ontario, Canada, and its US partner, IDC Criticom International, were awarded the contract to create a system for that purpose. By Thanksgiving, the company had over 225 satellite tracking units installed on the trucks working at the WTC site, with **status** updates **available** in real-time via an Internet connection to DDC.

TEXT: COMPANY:
Dept. of Design and Construction

New York, NY

OPERATION:

Provides design and construction services for streets and highways, schools and libraries, sewer systems, and other public structures.

Problem:

The routine nature of the tasks carried out by New York City's Dept. of Design and Construction (DDC) came to an abrupt halt on Sept. 11, 2001. After being hit by two hijacked jumbo jets, the World Trade Center's twin towers collapsed into a pile of steel and pulverized concrete weighing in excess of 1.2 million tons.

With guidance from FEMA and others, DDC tried to bring order to the debris removal process. Hundreds of drivers and construction equipment at the site created traffic jams that rendered much of the equipment idle.

DDC had to find a way to monitor the activities of all the trucks involved. Any system used for that purpose had to be installed on a variety of vehicles at a reasonable cost and with minimal downtime. Three weeks after Sept. 11, DDC put out a "request for proposal" to see if such a system existed.

Solution:

PowerLOC Technologies, located in Richmond Hill, Ont., Canada, and its U.S. partner, IDC Criticom International, were awarded the contract. By Thanksgiving, the company had over 225 satellite tracking units installed on the trucks working at the WTC site, with **status** updates **available** in real-time via an Internet connection to DDC.

Yoram Shalmon, director of product management for PowerLOC, says the heart of the system is a small black box installed under the passenger seat of every truck working at the site. The steel box, which takes only 20 minutes to install, contains a GPS receiver to determine the location of each truck. A transmitter placed on the passenger sideview mirror of the vehicle sends that information to a computer control center near the Manhattan site.

DDC was initially concerned about the feasibility of transmitting wireless signals through New York City's urban canyons, says Shah-non, but the wide ground field antenna used to transmit the signals eliminated that problem.

"We built a number of 'alarms' into the system," explains Shalmon. "If the tracking unit or truck trailer was disconnected, if a vehicle was late to the arrival site, went to the wrong dump site, or left pre-set routes, the system would alert DDC."

The system also enabled DDC to gauge the productivity of the trucks working at the site, increasing the number of loads hauled per shift from four to ten. And when DDC noticed there were too many trucks waiting for loads, it reduced the number of vehicles by 40%.

Shalmon said rerouting around delays became a key aspect of this system. When 15 trucks were found waiting at a dock for barges, DDC directed them to another dock location.

The productivity controls provided by PowerLoc enabled DDC to lower the expected cost of removing debris from over a billion dollars to $600 million.

The PowerLOC system was also used to prevent vandalism at the site, says DDC spokesman John Spavins.

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COMPANY NAMES:
Department of Design & Construction-New York City NY (NAICS:926120)
PowerLOC Technologies Inc (NAICS:334220)
GEOGRAPHIC NAMES: United States; US; New York City New York

DESCRIPTORS: Intelligent vehicle highway systems; Disaster recovery; Government agencies; Motor vehicle fleets; Satellite communications; Real time; Cities
CLASSIFICATION CODES: 9190 (CN=United States); 9550 (CN=Public sector); 5250 (CN=Telecommunications systems & Internet communications); 5160 (CN=Transportation)
PRINT MEDIA ID: 28653
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Logistics and electronic commerce: An interorganizational systems perspective

Lewis, Ira

Transportation Journal v40n4 PP: 5-13 Summer 2001 CODEN: TRNJAE ISSN: 0041-1612 JRNL CODE: TRN
DOC TYPE: Periodical; Feature LANGUAGE: English RECORD TYPE: Fulltext
LENGTH: 9 Pages
SPECIAL FEATURE: Illustration
WORD COUNT: 5682

ABSTRACT: The coordination of activities within supply chains using information technology can be described as taking place using two broad types of mechanisms, both of which use intermediaries to carry out logistics activities. These are electronic hierarchies, consisting of legally separate firms that share a close relationship within a supply chain, and electronic markets characterized by short-term linkages that result from individual transactions. A key influence of information technology on logistics is the emergence of separate but linked intermediaries for handling physical goods and the information associated with those goods.

TEXT: Abstract

The coordination of activities within supply chains using information technology can be described as taking place using two broad types of mechanisms, both of which use intermediaries to carry out logistics activities. These are electronic hierarchies, consisting of legally separate firms that share a close relationship within a supply chain, and electronic markets characterized by short-term linkages that result from individual transactions. A key influence of information technology on logistics is the emergence of separate but linked intermediaries for handling physical goods and the information associated with those goods.

This article is intended to provide a conceptual framework that integrates research from the fields of logistics and information systems. We hope to contribute to understanding the restructuring of logistics that is occurring with the information technology (IT) revolution and the rise of electronic commerce. Our approach is an attempt to understand logistics using insights from another management discipline, that of information systems.1

Corporate strategy is increasingly focused on the flow of information between buyers and suppliers. While physical goods cannot be moved as rapidly as information, expectations of what logistics processes can accomplish have risen with rapid improvements in IT. Accordingly, the physical distribution of goods is being restructured to take advantage of increased efficiencies in IT, notably in the ease of communication among the different components of the supply chain.2

This article begins with a discussion of supply chains from the perspective of interorganizational systems, one of the major fields of IT research. The study of interorganizational systems relies on transaction cost economics, and centers on the use of hierarchies and markets to characterize relationships between firms in a supply chain.3 We then review the emergence of electronic commerce as an application of interorganizational

systems and the impact of electronic commerce on logistics activity. The next section proposes a conceptual structure for analyzing physical and information flows within supply chains that builds on research in IT.

HIERARCHIES AND MARKETS

Supply chains represent an example of business process change enabled by interorganizational systems (IOS). Bakos has defined an IOS as "an information system that links one or more firms to their customers or their suppliers, and facilitates the exchange of products and services."4 An information system is a set of people, procedures, and resources, whether manual or automated, that collects, transforms, and disseminates information.5

Information systems perform three vital roles in any type of organization: they support business operations (such as capturing point-ofsale data), managerial decision making (such as choosing suppliers), and strategic competitive advantage (for example, a firm's ability to integrate its entire supply chain). The key enabler of IOS is telecommunications and information systems, such as the Internet or private networks, that link the terminals and computers or businesses with their customers and suppliers, resulting in new business alliances and partnerships. According to Handheld and Nichols, appropriate use of IOS provides decision makers with timely access to all required information, in an appropriate format, from any location within the supply chain.6

Research into the employment of IOS is based on transaction cost theory, which considers two different types of coordination mechanisms for carrying out transactions between buyers and sellers: hierarchies and markets.' In the context of IOS, we use the terms electronic hierarchies or electronic markets to emphasize that buyer-seller relationships are enabled by IT.8 In an electronic hierarchy, the organizations involved share a long-term relationship and align their internal processes with one another. Purchasing and distribution are accomplished by managerial decision making within and between firms in the supply chain. Cooperation between firms may tend to blur the boundaries between the companies, even if they are legally separate. While an electronic hierarchy is enabled by the efficient exchange of information between its components, such factors as personal acquaintance, mutual understanding, and trust play an important supporting role.

The emergence of electronic hierarchies to link separate firms in the supply chain represents a response to switching costs, or what Womack and Jones have described as "the massive costs of casual interactions." The use of the term "electronic hierarchy" to describe an inter-firm relationship represents a change in terminology as transaction cost theory views hierarchies as existing only within single firms. The blurring of boundaries between hierarchies and markets represents one of the key impacts of IT on managerial functions such as logistics."

The second type of IOS is an electronic market designed to match buyers and sellers who generally do not share long-term relationships, such as those who do business through a stock exchange. Electronic markets occupy a relatively neutral position between buyers and sellers, providing services to both sides of a transaction." The matching process includes "price discovery," the process of determining the prices where supply and demand "clear" and exchange occurs. Markets also facilitate transactions by supporting arrangements for logistics (including order fulfillment and delivery), settlement of payments, and in some cases, providing trust or insurance to guarantee commitments made by buyers or sellers."

Markets can generally be characterized as either centralized or decentralized. Centralized markets use one or more intermediaries such as brokers or distributors; buyers and sellers need only connect to one or more of these intermediaries to carry out a transaction-stock exchanges are a good example of a centralized market. More recently, online trade exchanges such as priceline.com, ebay.com, and the Covisint joint electronic marketplace announced in February 2000 by General Motors, Ford, and DaimlerChrysler have demonstrated the increasing importance of centralized electronic markets. The exchange planned by the Big Three auto manufacturers is expected to account for purchases of approximately $250 billion a year and involve about 60,000 suppliers. Total business-to-business ("B2B") electronic commerce is forecasted to total more than $2.7 trillion by 2004, complemented by an estimated $184 billion in online sales by businesses to consumers ("BX"). The market research firm Forrester Research predicts that 20 percent of all trade will be handled online by 2005.13

As explained by Nissen, an evolution is in progress that is leading to the increasing integration of supply chain management and electronic commerce, while at the same time blurring the boundaries between B2B and B2C:

Even the term supply chain is expanding in breadth to reflect its increasing scope and importance in the enterprise.... Although many researchers maintain a narrow focus on supply process activities, others ... now concentrate on interorganizational relationships between enterprise buyers and sellers, emphasizing commercial exchanges of goods, services, information and money. Indeed, the distinction is blurring between supply chain management and commerce through business-to-business markets, and many important principles and trends apply to consumer markets as well."

Intermediaries add value to supply chains by reducing the cost of bringing a product to market, through actions such as aggregating buyer demand or seller production to achieve economies of scale, protecting buyers or sellers from opportunistic behavior, and matching buyers and sellers.15

In contrast, in a decentralized market, all the participants can contact each other directly, and no intermediaries are present. For example, individual travelers who directly contact an airline to arrange travel, without going through a travel agent, are taking part in a decentralized market. Another example of a decentralized market would be one that uses intelligent agents to carry out transactions. Intelligent agents are software programs that possess knowledge (such as in the form of rules or facts) to make decisions and carry out tasks on behalf of their principals. For example, intelligent agents can match buyers with sellers and make purchase decisions based on pre-set criteria.16

Relationships between pairs of firms in a supply chain enabled by electronic commerce can be characterized as being hierarchies or markets, although these relationships usually consist of some variant or combination of the two. For example, there may be only one major buyer for a supplier's products. Even though the two firms may negotiate prices and other terms of exchange on an individual transaction basis (that is, in a market-like way), the buying firm will exert considerable influence on the supplier, in a manner not unlike a hierarchical relationship. The trend toward a reduction in the number of suppliers is an example of the blending of markets and hierarchies in a single supply chain.17

Despite the challenges of categorizing the relationships between firms in a supply chain as markets, hierarchies, or a hybrid of both, each of these two types of generalized relationships between buyers and suppliers has distinctive characteristics with respect to its cost structure. The costs

of acquiring physical goods and associated services can be divided into production and coordination costs. Coordination costs include activities such as searching for a supplier, evaluating bids, negotiations, and contract administration associated with the acquisition of goods and services.

Generally speaking, coordination costs are higher when a market is used rather than a hierarchy. This is because arranging in-house production usually involves less effort than contracting with an outside firm. Conversely, in-house production costs may be higher than those associated with purchased goods, because the firm carrying out the production may not be specialized in manufacturing of the item that could otherwise be purchased from other firms. Competition between outside suppliers for the buyer's business also tends to have the effect of reducing the production costs of purchased goods.

Significant innovations in IT over the past twenty years, including the widespread adoption of personal computers linked through private networks and the Internet, have had a major impact on improving productivity throughout the economy. However, IT tends to have a greater impact on coordination costs than on production costs. This is because markets use IT more intensively than hierarchies, whose activities include in-house production. Also, as mentioned previously, markets have higher coordination costs than hierarchies. So at least from a theoretical perspective, improvements in IT should lead to a reduction in coordination costs that favors greater use of markets. The trend toward the outsourcing of manufacturing and logistics is congruent with this theory, as is the growth of online trade exchanges.18

ELECTRONIC COMMERCE

Electronic commerce has been defined as an application of interorganizational systems that supports the electronic trading of physical goods and of intangibles such as information.19 Electronic commerce takes place over the Internet using applications such as web browsers and electronic mail, as well as through private networks using protocols such as electronic data interchange (EDI) or electronic funds transfer.

The rapid development of electronic commerce is in part due to the almost universal and low-cost availability of Internet access and web browser software that includes a standardized user interface. Earlier technologies such as EDI use proprietary software and require dedicated links to private networks.10 Finally, the interactive nature of the Internet supports customer service objectives as users can rapidly and easily obtain responses or confirmation to data inputs or inquiries.21

Electronic commerce also represents a means of leveraging, for the benefit of buyers and sellers, the trend toward increased product customization and personalization. Information technology allows for the large-scale tracking of customer preferences, including those associated with logistics processes such as ordering and delivery. Additionally, IT permits the separation of the management and routing of physical goods flows from the processing of information relating to those goods. The information component of logistics can be aggregated or disaggregated from the physical component, depending on the context.22

Electronic marketplaces such as online trade exchanges are an example of the aggregation of information from a wide variety of sources. Under a traditional scenario, a buyer of an industrial product, for example, would search trade magazines and catalogs for likely sources of supply, obtain

recommendations from colleagues or sales representatives, arrange for purchase from a chosen supplier by phone, mail, or fax, and select a carrier to deliver the product. In contrast, online trade exchanges reduce the total cost of these activities by integrating and efficiently executing the different stages in the marketing, source selection, purchasing, and delivery of products."

DISINTERMEDIATION vs. DISAGGREGATION

The trend toward disintermediation is closely associated with the emergence of electronic commerce. Indeed, electronic hierarchies allow buyers and sellers to communicate directly and carry out transactions without the assistance of intermediaries.24 As explained by Chircu and Kauffman:

Intermediaries typically provide transaction processing capabilities for buyers and sellers and thus act in an operational capacity, or they have enhanced levels of knowledge and expertise and add to the transactability of a given good or service .... Disintermediation occurs when a middleman gets pushed out by other firms, or when the services it provides become irrelevant in a marketplace that offers other ways to get the same kind of transaction done.25

In 1987, Malone, Yates, and Benjamin referred to disintermediation as the "electronic brokerage effect." 26 To date, evidence of disintermediation is not convincing, although the theoretical contribution of the concept is recognized.27 Moreover, online marketplaces represent not the elimination of intermediaries, but rather the emergence of a new type of intermediary, that can perform the same functions as traditional intermediaries, such as:

* Matching buyers and sellers;

* Providing product information to buyers and marketing information to sellers;

* Managing physical deliveries;

* Providing mechanisms for financial settlement and guarantees, and ensuring the integrity of transactions."

Accordingly, it might be more accurate to refer to disintermediation as re intermediation.29 Nissen has pointed out that reintermediation is not limited to intermediaries that have been previously pushed out of a market. Furthermore, the motivation for disintermediation centers primarily on reducing costs, while the justification for reintermediation is related to the relative value of services provided by new intermediaries. In either case, for an intermediary to viably participate in a supply chain, buyers and sellers must perceive the value added by the intermediary to exceed the marginal cost of marked up prices or fees.30

Physical intermediaries such as warehouses or transportation carriers are still required for the execution of logistics activities. However, traditional intermediaries, such as distributors, which carry out both the physical handling of goods and the information processing activities associated with matching buyers and sellers, may be eclipsed by specialists in each of these two domains within the supply chain-a disaggregation of physical and information flows. As mentioned previously, for information flows these specialists include online trade exchanges that do not handle physical goods, and act only as information intermediaries. Similarly, the physical flow of goods can be handled through a third-party logistics provider (3PL).3" As explained by Sarkar, Butler, and Steinfield, who use the term "cybermediary" to refer to the new information intermediaries:

... the unbundling of channel functions resulting from lower coordination costs is likely to contribute to the separation of physical distribution from other cybermediary functions. This can simplify and shorten physical distribution (e.g., Federal Express in the distribution system) while producing complex and longer networks of informational intermediaries (e.g., some firms may locate products, others provide evaluations of related products, others provide training, others provide settlement services, etc.).32

Emerging alliances between 3PLs and online trade exchanges support the trend toward disaggregation; each type of intermediary specializes in either physical or information flows. In the same vein, Cort has developed the following scenario:

If IT allows suppliers to use many alternative routes to the customer to deliver the same service levels, while reducing transaction and logistical costs, the customer will be driven away from the traditional options, like merchant wholesalers specializing in a limited line of products. Moreover, if IT allows nontraditional options, like integrators, to reduce the customers' overall acquisition expenses across a broad range of product lines, merchant wholesaler specialists in all of those lines are threatened.33

Intermediaries will continue to play an important role in logistics, but their core competencies will tend to gravitate around either the physical handling of goods or the processing of information. Traditionally, intermediaries have handled both. Where complementarity between the two domains is commercially desirable, online trade exchanges (referred to as "integrators" in the quotation above) and 3PLs will form what Sawhney and Kaplan have characterized as a "patchwork of alliances."34

Using the terminology established previously, these relationships between online trade exchanges and 3PLs could be described as electronic hierarchies. For example, the online trade exchange E-chemicals.com has chosen Yellow Freight as its preferred logistics provider, while PlasticsNet.com and the used electronic equipment exchange iMark.com have chosen Schneider Logistics as their principal 3PL.35

Accordingly, future supply chains may consist of a combination of electronic markets and electronic hierarchies. Buyers will benefit due to reduced search and administrative costs, while sellers will use electronic markets to reach a wider variety of buyers. At the same time, more long-term, comprehensive arrangements will characterize key buyer-supplier relationships that take the form of electronic hierarchies.

Electronic hierarchies will be critical to maintaining product differentiation (also known as asset specificity), as commodity-like products that are easy to describe and adapt easily to market-like transactions tend to be characterized by lower profit margins. Customized features and a high level of service or product innovation can be used to differentiate products, particularly with respect to logistics activities that support transactions between buyers and sellers. As explained by Holland and Lockett:

Rather than use IOSs to decrease the level of asset specificity and deal with larger numbers of suppliers, organizations are implementing IOSs that increase the level of asset specificity, either as part of an explicit strategy to tie-in customers or as a result of improving the coordination of hierarchical business relationships. The net result of these strategies is increased organizational and information technology integration across

organizational boundaries, accompanied by a payoff in terms of improved responsiveness to market changes, shorter product development life-cycles, and better product quality. The evidence to support these ideas are the emergence of integrated supply chains and a reduction in the number of suppliers in many manufacturing companies.36

For example, an online exchange that partners with a 3PL can distinguish itself by allowing the buyer to select the mode of warehousing and delivery as well as track inventory and shipping status. An example of this trend is the partnership among logistics software firm i2 Technologies, the third-party logistics provider Ryder System Inc., and the trucking company Central Transportation International. The partnership has led to the creation of an electronic marketplace known as FreightMatrix that is designed to provide logistics support to industry-specific online trade exchanges.37

EMERGING STRUCTURES FOR PHYSICAL AND INFORMATION FLOWS

The nature of products and the evolution of industry structure will determine whether electronic markets or hierarchies are chosen to manage a buyer-seller relationship. Electronic commerce promotes a reduction in buyer search costs, i.e., the costs of obtaining information about the price and characteristics of products. When buyer search costs fall, so will seller profits, as sellers have less ability to exploit the buyer's lack of information about a product.38

Accordingly, sellers have an incentive to differentiate their product from their competitors, particularly when they can no longer exploit buyer search costs. One of the ways sellers can do so is by bundling their product with a variety of services such as after-sales support and warranties. Another method consists of providing efficient communications, such as customized web sites for certain clients.

As suggested by Bakos, "If sellers can control the type of electronic market introduced, they should favor a system emphasizing product information rather than price-shopping."39 Major manufacturers increasingly recognize that long-term profitability depends on aftersales support rather than exclusively on the initial sale of capital goods." Electronic commerce supports the "bundling" of products and services through electronic markets and electronic hierarchies by exploiting efficiencies in information gathering, processing, and distribution. As Segev, Gebauer, and Farber have explained, "At least today, intermediaries are thriving that manage to provide value to market players in addition to pure aggregation and dissemination of data. "41

Figure 1 provides an illustration of the emerging structure for information flows associated with logistics activities enabled by electronic commerce. On the left side of the figure, buyers and sellers interact via an IT node that could be an online trade exchange or webbased merchant. This relationship could be either an electronic market or electronic hierarchy, depending on the role played by the intermediary. On the far left side of the diagram, the vertical line provides another alternative-a direct relationship (or decentralized market) between buyers and sellers that does not involve an intermediary.

The central oval within the figure shows the 3PL as the intermediary responsible for arranging logistics services from individual providers such as carriers, warehousing firms, or order fulfillment specialists. On the right side of the figure, an online transportation or logistics exchange provides a means of buying and selling services involving those logistics services providers. Like the relationship between buyers and sellers,

transportation or logistics exchanges could be exclusively of a marketlike nature, emphasizing, for example, loadmatching of trucks with freight, or could evolve into the more integrated relationships usually associated with electronic hierarchies.

Accordingly, the relationship between a 3PL and its suppliers can take the form of an electronic market or hierarchy, depending on the circumstances. However, the relationship between the online exchange and the 3PL (the bold line connecting the two sides of the figure) would be characterized as an electronic hierarchy because the exchange will tend to desire longer-term relationships with a small number of 3PLs.42

CONCLUSION

This article has discussed how the evolution of IT has led to the restructuring of logistics into two separate yet linked domains. One domain deals with physical goods flows, the other with the flow of information associated with those goods. Electronic commerce represents a means of carrying out the trading of goods and information through interorganizational systems. These systems use hierarchies, markets, or some combination of the two to coordinate transactions within supply chains.

The rapid development of electronic commerce has led to the emergence of online trade exchanges that represent a form of centralized electronic market. Because these exchanges deal only with information flows, many of them are entering into strategic alliances (or "electronic hierarchies") with third-party logistics firms. The 3PLs manage the physical flows that result when the online trade exchanges match buyer and seller requirements.

Lambert and Cooper recently stated that there is a need for "building theory and developing normative tools and methods for successful SCM [supply chain management] practice."43 Congruent with that view, a workshop sponsored by the National Science Foundation emphasized the need for interdisciplinary dialogue in electronic commerce research, and concluded as follows:

In its broader usage, electronic commerce extends into all aspects of social and economic activities being reorganized by computers and networking. Electronic commerce, defined narrowly as "selling and buying on the Internet," is a deceptively simple idea, but its far reaching implications [are] in enabling a new networked economy where the organizational complexity and procedural interdependency necessitate that we examine current issues and future directions for basic research with a multidisciplinary focus.44

Within the same spirit, this article has proposed a theoretical framework for analyzing the flow of goods and information through supply chains enabled by electronic commerce. We believe that conceptual interdisciplinary research into logistics challenges merits attention, and that such work could also form the basis for useful empirical research. Indeed, the study of distribution channel structures has been described as "a fundamental research task."" The use of insights from other disciplines is not new to logistics; for example, research from fields such as business strategy and marketing has considerably enriched knowledge about logistics, particularly during the past ten years.46

Figure 1.

We have attempted to draw on research in the field of information systems to assist in understanding the evolution of logistics, particularly given

the significant impact that IT is having on all sectors of economic activity. In writing this article, we sensed that research in logistics could benefit from the rich literature that exists in IT fields such as interorganizational systems and electronic commerce. As Sarkar, Butler, and Steinfield pointed out, the physical paths that goods traverse are being simplified, in part due to the growth of outsourcing in logistics.47 However, the capture, storage, processing, and dissemination of information related to physical goods has grown far more complex with the rise of electronic commerce. Both researchers and practitioners in logistics will need to shift their focus to accommodate the requirement to manage and analyze complex information flows. As an editorial in the February 2001 edition of American Shipper observed:

There is a huge demand for better, network-based information sharing systems that speed up international transactions, enabling shippers to predict total logistics costs, re-route shipments while in transit and make the right management decisions based on up to date data. This is a learning process and the most important lesson already learned is that business information and data [are] like pure gold when properly organized and converted into a usable, digital format with the right execution and business experience behind it.48

This article has cited a small portion of the logistics-related research in IT that deals with subjects such as buyer-seller relationships, the impact of supplier base reduction, and the implementation of supply chain management practices.49 At the moment, journal articles and conference proceedings in logistics management typically contain very few or no references to IT research publications. We believe there is considerable opportunity and potential for interdisciplinary research that integrates insights from the fields of logistics and information technology.

ENDNOTES

1 Michael A. McGinnis, Sylvia K. Boltic, and C.M. Kochunny, "Trends in Logistics Thought: An Empirical Study," Journal of Business Logistics 15, No. 2 (1994): 273-303.

2 Zach G. Zacharia, "The Evolution and Growth of Information Systems in Supply Chain Management," in John T. Mentzer, Ed., Supply Chain Management. Thousand Oaks, CA: Sage Publications, 2001, 289-319.

3 Alexander Talalayevsky and James C. Hershauer, "Coordination Cost Evaluation of Network Configurations," Journal of Organizational Computing and Electronic Commerce 7, no. 2&3 (1997): 185-199; Thomas W. Malone, "Modeling Coordination in Organizations and Markets," Management Science 33, No. 10 (October 1987): 1317-1332.

4 J. Yannis Bakos, "Information Links and Electronic Marketplaces: The Role of Interorganizational Information Systems in Vertical Markets," Journal of Management Information Systems 8, No. 2 (Fall 1991): 31-52.

5 James A. O'Brien, Introduction to Information Systems: Essentials for the Internetworked Enterprise, Ninth Edition (Chicago: Irwin McGraw-Hill, 2000): G-10.

6 Robert B. Handfield and Ernest L. Nichols, Jr., Introduction to Supply Chain Management (Upper Saddle River, NJ: Prentice-Hall, 1999): 19.

7 Oliver E. Williamson, The Economic Institutions of Capitalism (New York: Free Press, 1985).

8 Norm Archer and Judith Gebauer, Managing in the Context of the New

Electronic Marketplace, presented at the Ist World Congress on the Management of Electronic Commerce, January 19-21, 2000, Hamilton, Ontario, Canada. Available at <http://haas.berkeley.edu/-citm/>.
9 James P. Womack and Daniel T. Jones, "From Lean Production to the Lean Enterprise," Harvard Business Review 72, no. 2 (March-April 1994): 93-103; see also Bernard J. La Londe, Switching Costs, Working Paper, Department of Marketing, Ohio State University (July 1999), available at <http://www.cob.ohiostate.edu/-mkt/research/papers.htm>; Philip B. Evans and Thomas S. Wurster, "Strategy and the New Economics of Information," Harvard Business Review 75, No. 5 (September-October 1997): 71-82; Niul Burton, Jose Morales, and Tom O'Neill, "Creating Supply Advantage: Moving from Sharing Information to Sharing Ideas," Inbound Logistics 20, No. I (January 2000): 195-206.

10 Gregory N. Stock, Noel P. Greis, and John D. Kasarda. "Logistics, Strategy and Structure: A Conceptual Framework," International Journal of Physical Distribution and Logistics Management 29, no. 4 (1999): 224-239; see also Eric K. Clemons, Sashidhar P. Reddi, and Michael C. Row, "The Impact of Information Technology on the Organization of Economic Activity: The 'Move to the Middle' Hypothesis," Journal of Management Information Systems 10, No. 2 (Fall 1993): 9-35; JeanFrancois Hennart, "Explaining the Swollen Middle: Why Most Transactions Are a Mix of 'Market' and 'Hierarchy,"' Organization Science 4, no. 4 (November 1993): 529-547. " Arie Segev, Judith Gebauer, and Frank Farber, Internetbased Electronic Markets. Fisher Center for Management and Information Technology, Haas School of Business, University of California at Berkeley, January 1999 (Working Paper 98-WP-1036). Available at <http://haas.berkeley.edu/-citm/>.

12 J. Yannis Bakos, "The Emerging Role of Electronic Marketplaces on the Internet," Communications of the ACM 41, No. 8 (August 1998): 35-42,

13 Ashley Dunn and John O'Dell, "DaimlerChrysler, GM, Ford Plan Huge E-Business," Los Angeles Times (February 26, 2000): Al and A10; "'eMarketplaces' for Shipping?" American Shipper 42, No. 3 (March 2000): 2; See also Covisint web site at http://www.covisint.com.

14 Nissen, Mark, "Agent-Based Supply Chain Disintermediation versus Re-intermediation: Economic and Technological Perspectives," International Journal of Intelligent Systems in Accounting, Finance & Management 9, No. 4 (December 2000): 237-256. Italics in original.

15 Lei Jin and Daniel Robey, "Explaining Cybermediation: An Organizational Analysis of Electronic Retailing," International Journal of Electronic Commerce 3, No. 4 (Summer 1999): 47-65; Youngme Moon, Network Technology and the Role of Intermediaries. Harvard Business School Note 9-599-102 (revised May 17, 1999).
16 Nissen, op. cit.

17Thomas W. Malone, JoAnne Yates, and Robert I. Benjamin, "Electronic Markets and Electronic Hierarchies," Communications of The ACM 30, no. 6 (June 1987): 484-497; J. Yannis Bakos and Erik Brynjolfsson, "Information Technology, Incentives, and the Optimal Number of Suppliers," Journal of Management Information Systems 10, No. 2 (Fall 1993): 37-53.

18 Malone, Yates, and Benjamin, op, cit.; Robert C. Lieb and Hugh L. Randall, "A Comparison of the Use of ThirdParty Logistics Services by Large American Manufacturers, 1991, 1994, and 1995," Journal of Business Logistics 17, No. 1 (1996): 305-320; Martha C. Cooper, Lisa M. Ellram, John T. Gardner, and Albert M. Hanks, "Meshing Multiple Alliances," Journal of Business

Logistics 18, No. 1 (1997): 67-89.

" Paul Timmers, Electronic Commerce: Strategies and Models for Business-to-Business Trading (New York: John Wiley & Sons, Inc., 1999): 4.

" Lisa R. Williams, "Understanding Distribution Channels: An Inter-Organizational Study of EDI Adoption," Journal of Business Logistics 15, No. 2 (1994): 173-203.

11 Sid L. Huff, Michael Wade, Michael Parent, Scott Schneberger, and Peter Newson, Cases in Electronic Commerce (New York: Irwin McGraw-Hill, 2000): 3-4.

1 Bakos, op. cit.; Ira Lewis and Alexander Talalayevsky, "Logistics and Information Technology: A Coordination Perspective," Journal of Business Logistics 18, No. 1 (1997): 141-156; Ira Lewis and Alexander Talalayevsky, "Third Party Logistics: Leveraging Information Technology," Journal of Business Logistics 20, No. 2 (2000), 173-185.

23 Kathleen Hickey, "Hero Play," Traffic World (February 14, 2000): 45; Craig Stedman, "Online Exchange Service Offers Automated Shipping," Computerworld (January 31, 2000): 40; Ken Cottrill, "Digging for Gold," Traffic World (January 24, 2000): 16.

23 Jin and Robey, op. cit.; Robert I. Benjamin and Rolf Wigand, "Electronic Markets and Virtual Value Chains on the Information Highway," Sloan Management Review 36, No. 2 (Winter 1995): 62-72.

11 Alina M. Chircu and Robert J. Kauffman, "Reintermediation Strategies in Business-to-Business Electronic Commerce," International Journal of Electronic Commerce 4, No. 4 (2000): 7-42.

23 Malone, Yates, and Benjamin, op. cit.

22 See Chircu and Kauffman, op. cit., for a survey of the literature on disintermediation and reintermediation in electronic commerce.

Bakos, op. cit.

23 Chircu and Kauffman, op. cit. Nissen, op. cit.

11 Arnold B. Maltz and Lisa M. Ellram, "Total Cost of Relationship: An Analytic Framework for the Logistics Outsourcing Decision," Journal of Business Logistics 18, no. 1 (1997), 45-66; Harry L. Sink and C. John Langley, "A Managerial Framework for the Acquisition of ThirdParty Logistics Services," Journal of Business Logistics 18, No. 2 (1997): 163-189.

32 Mitrabarun Sarkar, Brian Butler, and Charles Steinfield, "Cyberme diaries in Electronic Marketspace: Toward Theory Building," Journal of Business Research 41, No. 3 (1998): 215-221.
" Stanton G. Cort, "Industrial Distribution: How Goods Will Go to Market in the Electronic Marketplace," Business Economics 34, No. 1 (January 1999), 53-55.

1 Mohanbir Sawhney and Steven Kaplan, "Let's Get Vertical," Business 2.0 (September 1999). Available at <http:/Iwww.business2.com/articles/1999/09/text/models.hun>. 11 Cottrill, op. cit.; Julia King, "Disintermediation/ Reintermediation," Computerworld (December 13, 1999): 54; Russ Banham, "B2B Hubs Adding Logistics to Services," World Trade 13, No. 4 (April 2000): 52-53.

11 Christopher P. Holland and A. Geoffrey Lockett, "Mixed Mode Network Structures: The Strategic Use of Electronic Communication by Organizations," Organization Science 8, No. 5 (September-October 1997): 475-488. Italics in original. See also Stefan Reinheimer and Freimut Bodendorf, "A Framework for Electronic Coordination in the Air Cargo Market," The Information Society 15, No. 1

(January-March 1999): 51-55.

37 "i2 Launches Online Electronic Marketplace," American Shipper+ Shippers NewsWire (March 1, 2000).
Evans and Wurster, op. cit. Bakos, op. cit.

Richard Wise and Peter Baumgartner, "Go Downstream: The New Profit Imperative in Manufacturing," Harvard Business Review 77, No. 6 (September-October 1999): 133-141; Jim Ayers, "A Primer on Supply-Chain Management," Information Strategy 16, No. 2 (Winter 2000): 6-15.

41 Segev, Gebauer, and Farber, op. cit.; Sarkar, Butler, and Steinfield, op. cit.

I Connie Gentry, "LIT [Logistics Information Technology] News for the New Year," Inbound Logistics 20, No. 1 (January 2000): 223-226; see also Bakos and Brynjolfsson, op. cit., for an explanation of the trend toward a reduced number of suppliers.

11 Douglas M. Lambert and Martha C. Cooper, "Issues in Supply Chain Management," Industrial Marketing Management 29, No. 1 (January 2000): 65-83.

" NSF [National Science Foundation] Workshop-Research Priorities in Electronic Commerce: September 10-12, 1998, IC2 Institute, University of Texas at Austin. Available at <http://cism.bus.utexas.edu/workshop/ecdraft.html>.

" Sarkar, Butler, and Steinfield, op. cit.

" See, for example, Stephen R. Clinton and David J. Closs, "Logistics Strategy: Does It Exist?" Journal of Business Logistics 18, No. 1 (1997): 19-44; Joseph L. Cavinato, "A General Methodology for Determining a Fit Between Supply Chain Logistics and Five Stages of Strategic Management," International Journal of Physical Distribution and Logistics Management 29, No. 3 (1999): 162-181.

" Sarkar, Butler, and Steinfield, op. cit.

" Philip Damas, "e-Commerce still flourishing," American Shipper 42, No. 2 (February 2001): 88.

49 Those interested in information systems research that is relevant to logistics may wish to review publications such as the Journal of Management Information Systems, Management Information Systems Quarterly, the Journal of Organizational Computing and Electronic Commerce, the International Journal of Electronic Commerce, Communications of the ACM, Information Systems Research, and Organization Science. Also, the ISWorld web site (http://www.isworld.org), sponsored by the major academic information systems research associations and publications, provides a comprehensive gateway to academic, business, and government information systems research.

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GEOGRAPHIC NAMES: United States; US

DESCRIPTORS: Supply chains; Studies; Logistics; Electronic commerce; Information technology
CLASSIFICATION CODES: 9130 (CN=Experimental/Theoretical); 5250 (CN=Telecommunications systems & Internet communications); 5330 (CN=Inventory management); 9190 (CN=United States)
PRINT MEDIA ID: 23507
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? t 1108954/7

1108954/7
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1108954 Supplier Number: 01823398 (THIS IS THE FULLTEXT)
US: Independent Contractors And The National Labor Relations Act
(In order to enjoy the economic advantaged afforded by their use, companies need to establish defensible and appropriate relationships with independent contractors)
Mondaq Business Briefing - Morgan, Lewis & Bockius, US, p N/A
January 13, 1999
WORD COUNT: 1737

TEXT:
INDEPENDENT CONTRACTORS AND THE NATIONAL LABOR RELATIONS ACT

Miriam L. Fisher & Nicole Wynn

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Recent studies show that there are currently 8.5 million independent contractors, representing 6.7 percent of the workforce. Thirty percent of all companies in the United States use independent contractors to fulfill some of their work requirements. 1/ For simple economic reasons, the use of independent contractors is likely to continue to expand. Employers are not obligated to withhold taxes or contribute payroll taxes for independent contractors. And, perhaps more important, employers do not have to provide increasingly expensive employee benefits for independent contractors.

In order to enjoy the economic advantages afforded by the use of independent contractors, however, companies must strive to establish appropriate and defensible non-employee relationships with such workers. Courts have consistently held that a worker is not an independent contractor merely because he or she is designated as such in a contract between the two parties. Instead, courts examine numerous factors in order to make the determination of whether a worker is an independent contractor or an employee. To further complicate issues, the various statutory schemes at play employ different tests in the determination of employee/independent contractor status.

Because the issue of proper classification is inherently complex and factual, companies often face significant challenges in successfully establishing with any degree of certainty that a given worker is truly an independent contractor and not an employee of the company. The risks of improperly classifying workers are substantial. Reclassification of workers under tax, employee benefit, labor and employment laws can have potentially devastating financial consequences for a business. The Microsoft case is a prime example. In Vizcaino v. Microsoft,2/ the court held that Microsoft Corporation misclassified over 5,000 workers. Consequently, those workers were entitled to damages including company stock and 401(k) retirement plan contributions.

Independent Contractor Status Under The National Labor Relations Act

In the labor context, the classification of workers has become a very contentious issue as unions and other workers' rights groups have vigorously opposed the proliferation of the independent contractor workforce. The National Labor Relations Act (NLRA) is the primary federal

statute protecting employees' rights to organize and to bargain collectively with their employers. But the NLRA, like most employment and labor laws, does not cover independent contractors. As a result, many employers are classifying workers as independent contractors to avoid unionization.

Traditionally, the National Labor Relations Board and federal courts have applied the common law of agency to determine whether a worker is an employee versus an independent contractor. They have considered ten factors: (1) the extent of control which, by agreement, the employer may exercise over the details of the work; (2) whether or not the worker is engaged in a distinct occupation or business; (3) whether work of that occupation is usually performed under an employer's supervision; (4) the skill required in the particular occupation; (5) whether the employer or the worker supplies the instrumentalities, tools, and the place of work for the person doing work; (6) the length of time for which the person is employed; (7) the method of payment, whether by time or by job; (8) whether or not the work is part of the regular business of the employer; (9) whether or not the parties believe they are creating an employment relationship; and (10) whether the principal is or is not in business. Until recently, the focus of this inquiry has been on the employer's right to control the means and manner in which work was performed - the so-called Right to Control test. The Board found that a worker was an independent contractor only if the individual retained substantial control over the services he or she provided, and bore proprietary risks associated with running an independent business.

Two recent Board decisions, however, indicate a departure from this traditional view. Relying on Supreme Court precedent, the Board in Roadway Package System, Inc. and Wholesale and Retail Food, Distribution, Teamsters Local 63 3/ and Dial-A-Mattress Operating Corporation and Local 363, Industrial and Allied Trade Workers, International Brotherhood of Teamsters, AFL-CIO 1/ expressly rejected the Right to Control test and held that all of the factors indicating an agency relationship should be equally considered in determining employee status. Looking at the individual facts of each case, the Board concluded that the truck driver owner 4/operators working for Dial-A-Mattress were independent contractors, while owner/operators working for Roadway were not. Roadway operates a nationwide package pickup and delivery system of over 5,000 drivers working out of over 300 terminals.

The issue in the case was whether a class of drivers at Roadway's Ontario, California and Pomona, California terminals were independent contractors. The drivers made package deliveries in a primary service area and could not refuse to pick up or deliver in that area. While on their routes, the drivers had to use a scanner to feed tracking data about their work into an onboard computer that electronically transmitted the information to Roadway's central computer. Roadway could, however, transfer overflow work from one driver's primary service area to other drivers to pick up and deliver as part of Roadway's "flex program". Examining the terminal operations, the Board concluded that the drivers did not operate their own businesses, but were an integral and essential part of Roadway's business; their work did not require any prior training or experience, but they received training from Roadway instead; they did business under Roadway's name; they had no substantial proprietary interest beyond ownership f their trucks; and they had no significant entrepreneurial opportunity for gain or loss. All of these facts indicated that the Roadway drivers were employees who could be organized by the union.

On the other hand, the Board held that drivers for Dial-A- Mattress, a national mattress discounter, demonstrated the requisite entrepreneurial

characteristics to be considered independent contractors. The Board emphasized that the Dial-A-Mattress drivers had formed their own trucking companies; had their own company uniforms; hired their own helpers; used their trucks to make deliveries for companies other than Dial-A-Mattress; and that they could submit contract proposals or try to negotiate special pay deals for their individual companies.5/

Forming An Independent Contractor Relationship

Based on the opposite results in the Roadway and Dial-A-Mattress cases, it is clear that the Board will strictly scrutinize the details of challenged independent contractor arrangements. It is also apparent that because the Board's inquiry is so fact specific, it is becoming increasingly difficult for employers to predict whether they have established a legitimate independent contractor relationship with a worker. Seemingly minor, superficial factors often have the cumulative effect of swaying the Board's determination one way or the other. There are some steps that companies can take to properly classify their workforce, however:

1.Examine operations to determine where you may have vulnerabilities and educate company personnel as to the legal and economic implications of worker classification.

2.Choose the right independent contractor. It is best to choose an independent contractor with specific skills and experience, who has an established business, is incorporated, has partners and/or associates, has capital/equipment, has a business premises, holds him or herself out to the public as an independent business person, and has other customers, preferably at the same time. Preferably, the company should not have to train the worker.

3.Enter into a written agreement with the independent contractor before any work is begun. The agreement should be carefully drafted and make specific reference to the factors that are used to determine employee/independent contractor status. For example, the agreement should contain, where possible, the following provisions:
(a)Refer clearly to the worker as an independent contractor.

(b)Set forth the results the worker is expected to obtain. Leave how the results will be obtained to the discretion of the worker.

(c)Do not specify the method or order of services. Where certain control elements exist in a relationship due to a government regulatory requirement, the fact that such element is mandated by the government, and not the service recipient, should be made apparent in the agreement.

(d)Provide for payment by the piece or job, rather than by the hour or week.

(e)State that the worker is ineligible for any benefits that are or may be provided to the company's employees.

(f)Limit the term of the agreement and specify a termination date. Leave the timing of the worker's services to the worker's discretion; do not specify hours to be worked.

4.Avoid the use of both independent contractors and employees to perform substantially similar tasks.
Independent contracting arrangements can benefit both the service recipients and the service providers. On the one hand, contractors have greater flexibility, can control their own hours, are not subject to the

direct control of one employer and often obtain tax benefits. Businesses, on the other hand, are able to cut labor and benefits costs and better respond to changing economic conditions. The risk associated with using independent contractors is, of course, that an employer will label its workers independent contractors when, in fact, a court or governmental agency will consider them employees. But a business that carefully considers and implements its independent contractor relationships may avoid the numerous potential legal pitfalls and still reap the substantial benefits afforded by non-employee staffing.

1/Michelle M. Lasswell, Workers' Compensation: Determining the Status of a Worker as an Employee or an Independent Contractor, 43 Drake L. Rev. 419 (1994) (citing a June 1991 study conducted for the U.S. Small Business Administration).

2/120 F.3d 1006 (9th Cir. 1997).

3/ 326 NLRB No. 72 (1998).
4/326 NLRB No. 75 (1998).

5/Despite the conclusion reached by the majority of the Board, the Board Chairman, William B. Gould, wrote a dissenting opinion citing what he viewed as strong evidence that the Dial-A-Mattress drivers were employees. The Chairman cited Dial-A-Mattress's control over the assignment of geographic areas in which the drivers made deliveries; control over the schedule for loading and unloading trucks; and discipline of drivers for breach of the company's policies. In Gould's opinion, the majority elevated form over substance and failed to consider the "powerful incentives" that some employers have "to evade the strictures of employment laws like the National Labor Relations Act."

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4/7/17 (Item 3 from file: 16)
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07424319 Supplier Number: 61970144 (THIS IS THE FULLTEXT)
DISPATCH SOLUTIONS. (Prophesy Dispatch software for transportation companies) (Brief Article)
Truck Fleet Management, v78, n4, p49
April, 2000
TEXT:
Prophesy Transportation Software

The company has introduced Prophesy Dispatch for smaller transportation companies and Prophesy Dispatch QB with an interface to QuickBooks accounting software for mid-size companies. Features on both packages include mileage and routing, dispatch, freight billing, revenue settlement/driver advances, fuel tax calculations, pending load board, Internet shipment **status** , a view of **available** drivers and equipment, customer-specific rating, split trip handling, trailer tracking and single-user or network configurations. Prophesy also offers a fully integrated Dispatch and Accounting package for larger trucking companies.

Also from Prophesy, mile.com, which offers free commercial mileage and routing, has been expanded to include free on-line, fuel-purchase optimizations on the MyMile section of the web site. FuelLogic uses Prophesy's mileage program to select the proper route, then recommends fueling spots based on price and location. The user can specify such details as tank capacity, minimum ending fuel level, average MPG and minimum purchase.

URL: www.mile.com

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09972411 Supplier Number: 90091515 (THIS IS THE FULLTEXT)
Browsing on the Road. (trucking industry's usage of the internet)
Fleet Owner, pNA
August 1, 2002
TEXT:
Byline: JIM MELE, EDITOR IN CHIEF

Trucking was an early adapter of wireless data services and was also quick to embrace Internet applications. What seems like a natural next step - wireless Internet - has been predicted as the industry's next-great-thing for almost five years now, but to date relatively few fleets have shown interest in the technology.

Many wireless services currently used by fleets do take advantage of the Internet as a low-cost, easy-to-implement conduit for moving information transmitted over their wireless networks to and from dispatchers and other fleet managers. The wireless portions of the services, however, use a variety of data formats developed specifically for their particular systems.

In contrast, wireless Internet actually pushes standard Internet browsing out to the mobile worker, providing remote access to a broad array of Internet-based data networks or applications.

That's not to say that drivers can view standard full-color web pages or surf the 'net to check stock prices. Rather, wireless Internet works with browsers and web pages designed specifically for wireless

devices with limited screen displays and relatively low-speed data transmissions, and drivers use the technology for real-time, low-cost access to the fleet's intranet or relevant public Internet sites.

The basic concept is to extend the office worker's Internet access out to the mobile worker with a wireless device, says Henry Popplewell, vp-transportation and logistics for Nextel Communications. Benefits include tying mobile workers directly into "an organization's specific business applications as well as giving them access to business tools like account information, weather, freight matching and so on," he explains.

For example, a few large LTL carriers have turned Nextel's Web-enabled handheld phones into low-cost wireless data collection devices for their pickup-and-delivery operations. As drivers make pickups, they file weight and destination information using the phones' small screens and wireless Internet connection. The data can then be immediately accessed by outbound load planning applications, accounting and customer service without any additional data-entry steps. Similarly, real-time **status** is **available** on deliveries for every portion of the operation that can use it.

Looking beyond LTL operations, Popplewell says logistics companies "that have a high degree of web enablement can make a strong business case for wireless Internet to improve supply chain visibility." Vehicle manufacturers and service providers could also use the technology "to push customer service right out to drivers, giving them direct access to maintenance schedules, PM alerts, traffic conditions and the like," he adds.

"Any company that needs to get specific job-related information to and from mobile workers in real-time and to keep track of their activities in an automated fashion can benefit from wireless Internet," says Miguel Gonsalves, vp-marketing and investor relations for AirIQ Inc.

A wireless applications provider to trucking and other industries with mobile workers, AirIQ currently has 25,000 subscriber units using its wireless Internet service, which can work with any mobile device that can access a web address. Small parcel couriers, P&D fleets and field-service operations are among its most popular wireless Internet fleet uses, says Gonsalves.

A single, consistent standard for communicating both within the office and from the field is a major advantage of the wireless Internet format, he points out. "With a common standard (like the Internet) also comes a multiple choice of vendors, which brings the cost advantages of mass production," he says.

For a smaller fleet, a native Internet system also makes it easier for them to take advantage of hosted or ASP (application service provider) services, freeing the fleet from software installation and maintenance responsibilities and costs, adds Popplewell. "The ASP model over-promised and under-delivered everywhere except in transportation," he says. "It turns out that a hosted Internet portal makes a lot of sense for a small fleet organization, and a wireless extension to drivers on the road is a model that works well."

If there is one weakness in current wireless Internet services, it's coverage. The two major suppliers of commercial wireless Internet service - Nexus in the U.S. and Telus in Canada - operate land-based networks that concentrate coverage within major population centers. For fleets with P&D or field service operations that match those target areas, wireless Internet works.

But if drivers have to routinely leave areas with reliable coverage, Internet browser based systems don't store information for forwarding when they return to coverage, says Matt Marks, a project manager for wireless applications provider PointServe.

"The concept of a thin client on a mobile unit (with the application residing on an Internet server) is a good one, but the coverage has to get better for our customers," Marks says. "Mission critical service providers

like utilities can't afford to have their technicians left high and dry because they're out of (wireless) contact."

Still, says Popplewell, "transportation companies have been ready adopters of any technology that drives customer service and improves productivity, which has made the industry unusually open to wireless solutions." And for a growing number of fleets, those solutions are likely to include wireless Internet.

Breaking the speed limit

Wireless Internet services used by truck drivers and other mobile workers have data transmission speeds that are roughly comparable to dial-up modems, generally clocking in between 40 and 65 Kbps. Such data speeds are more than adequate for the current crop of microbrowsers and web pages specifically developed for wireless systems.

Data-intensive web services like streaming video require far faster data speeds, and at least one company is already offering a wireless system boasting download speeds that approach 400 Kbps. Marketed mainly to owners of recreational vehicles, TracNet from KVH Industries receives its high-speed downloads through a mobile satellite TV antenna.

Uploads from the vehicle can be sent via a land line connection when the RV is parked or at a much higher cost over a wireless satellite or cellular system while its moving. The system also provides high-speed wireless LAN (local area network) connections within the vehicle for any PC device equipped with an 802.11b modem.

Streaming video hasn't made it into a wireless fleet application yet, but when it does, the technology is ready.

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Fleets online

ABSTRACT: The routine nature of the tasks carried out by New York City's Department of Design and Construction came to an abrupt halt on Sept. 11, 2001. With guidance from FEMA and others, DDC tried to bring order to the debris removal process at the devastated WTC site. DDC had to find a way to monitor the activities of all the trucks involved. PowerLOC Technologies, located in Richmond Hill, Ontario, Canada, and its US partner, IDC Criticom International, were awarded the contract to create a system for that purpose. By Thanksgiving, the company had over 225 satellite tracking units installed on the trucks working at the WTC site, with **status** updates **available** in real-time via an Internet connection to DDC.

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DIALOG(R)File 13:BAMP
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1108954 Supplier Number: 01823398 (USE FORMAT 7 OR 9 FOR FULLTEXT)
US: Independent Contractors And The National Labor Relations Act
(In order to enjoy the economic advantaged afforded by their use, companies need to establish defensible and appropriate relationships with independent contractors)
Mondaq Business Briefing - Morgan, Lewis & Bockius, US, p N/A
January 13, 1999
DOCUMENT TYPE: Report
LANGUAGE: English RECORD TYPE: Fulltext; Abstract
WORD COUNT: 1737

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TEXT:
...over 300 terminals.

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...tracking data about their work into an onboard computer that electronically transmitted the information to **Roadway** 's central computer. **Roadway** could, however, transfer overflow work from one driver's primary service area to other drivers to pick up and deliver as part of **Roadway** 's " **flex program** ". Examining the terminal operations, the Board concluded that the drivers did not operate their own businesses, but were an integral and essential part of **Roadway** 's business; their work did not require any prior training or experience, but they received training from **Roadway** instead; they did business under **Roadway** 's name; they had no substantial proprietary interest beyond ownership f their trucks; and they...

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